

**STATE OF NEW MEXICO
BEFORE THE ENVIRONMENTAL IMPROVEMENT BOARD**

IN THE MATTER OF:

PROPOSED NEW REGULATION

No. EIB 21-27 (R)

20.2.50 Oil and Gas Sector — Ozone Precursor Pollutants

**THE GAS COMPRESSOR ASSOCIATION'S NOTICE OF INTENT
TO PRESENT DIRECT REBUTTAL TESTIMONY**

Pursuant to 20.1.1.302 NMAC and the *Procedural Order* issued by the Hearing Officer on August 26, 2021, The Gas Compressor Association ("the GCA") submits this Notice of Intent to Present Direct Rebuttal Testimony at the hearing of this matter, scheduled to commence September 20, 2021.

I. Entity for whom the witnesses will testify

The witnesses will testify for the GCA.

II. Identity of witnesses

At the hearing of this matter, the GCA will call the following witnesses to present rebuttal testimony:

A. John Dutton

1. Summary of John Dutton's Qualifications and Identification of Rebuttal Testimony

Mr. Dutton's resume was previously filed as GCA Exhibit 13. Mr. Dutton's written rebuttal testimony is attached as GCA Exhibit 28.

2. Estimated Length of Mr. Dutton's Rebuttal Testimony

It is estimated that Mr. Dutton's rebuttal testimony will last approximately fifteen (15) minutes, more or less.

B. Mark Copeland

1. Summary of Mark Copeland's Qualifications and Identification of Rebuttal Testimony

Mr. Copeland's resume was previously filed as GCA Exhibit 16. Mr. Copeland's written rebuttal testimony is attached as GCA Exhibit 30.

2. Estimated Length of Mr. Copeland's Rebuttal Testimony

It is estimated that Mr. Copeland's rebuttal testimony will last approximately ten (10) minutes, more or less.

C. Mark Davis 122 Dovel Road Longview, Texas 75603

1. Summary of Mark Davis's Qualifications and Identification of Rebuttal Testimony

Mr. Davis is a mechanical engineer with seventeen years of experience in the natural gas compression industry. Mr. Davis holds a Bachelor of Science degree in mechanical engineering. Mr. Davis has served in various roles in the natural gas compression industry, including as an engineer and operator. Mr. Davis is currently employed as a Technical Services Manager by J-W Power Company, a position he has held for the past five years. In this position, Mr. Davis is responsible for managing the engineering and field service group that provides support for customers who employ gas compressor packages supplied by J-W Power. Mr. Davis is also responsible for ensuring that the compressor packages are designed and can be operated in a manner that ensures compliance with applicable environmental requirements. Mr. Davis is familiar with how gas compressor packages use pneumatic controllers and the concerns of compression services providers relating to the elimination of gas-driven pneumatic controllers. Mr. Davis's resume is filed herewith as GCA Exhibit 33. Mr. Davis's written rebuttal testimony is attached as GCA Exhibit 32.

2. Estimated Length of Mr. Davis’s Rebuttal Testimony

It is estimated that Mr. Davis’s rebuttal testimony will last approximately fifteen (15) minutes, more or less.

III. The GCA’s Rebuttal Hearing Exhibits

An updated list of exhibits that the GCA intends to offer into evidence in this matter is provided below. Rebuttal exhibits, beginning with GCA Exhibit 28, were appended onto the end of the list of exhibits from the GCA’s Notice of Intent to Present Technical Testimony (“NOI”), filed on July 28, 2021, in order to provide a single, complete list of all exhibit for the hearing. Only exhibits which were not filed with the NOI, or which have been amended, are included with this rebuttal filing. The GCA reserves the right to introduce and move for admission of any other exhibit in support of rebuttal testimony at the hearing.

1. The Gas Compressor Association’s Proposed Amendments to the following proposed regulations set forth in the Proposed Rule: 20.2.50.113.B(2), Table 1 and 20.2.113.B(3), Table 2 NMAC.
2. The Gas Compressor Association’s Proposed Amendments to the following proposed regulation set forth in the Proposed Rule: 20.2.50.113.C(1) NMAC.
3. The Gas Compressor Association’s Proposed Amendments to the following proposed regulations set forth in the Proposed Rule: 20.2.50.7; 20.2.50.122.B(3), Tables 1 & 2; 20.2.50.122.B(4) and 20.2.50.122.C(1) & (4) NMAC.
4. The Gas Compressor Association’s Proposed Amendments to the following proposed regulations set forth in the Proposed Rule: 20.2.50.115.B(4) and 20.2.50.113.C(2) NMAC.
5. The Gas Compressor Association’s Proposed Amendments to the following proposed regulation set forth in the Proposed Rule: 20.2.50.112.B(2) NMAC.

6. The Gas Compressor Association's Proposed Amendments to the following proposed regulation set forth in the Proposed Rule: 20.2.50.113.C(3) NMAC.
7. The Gas Compressor Association's Proposed Amendments to the following proposed regulation set forth in the Proposed Rule: 20.2.50.116.C(1)(e) NMAC.
8. The Gas Compressor Association's Proposed Amendments to the following proposed regulations set forth in the Proposed Rule: 20.2.50.112; 20.2.50.113.B(9), C(7) and D(1) & (2); 20.2.50.114.B(5); 20.2.50.115.B(3) & (4), C(2)(d), D(2)(c) and E(2)(b); 20.2.50.117.B(4) and C(3); 20.2.50.118.B(3)(d); 20.2.50.119.B(4) and C(4); 20.2.50.122.B(6), C(4) and D(6) & (7); 20.2.50.123.B(8) and C(4); and 20.2.50.123.B(8) and C(4) NMAC.
- A. Vic Sheldon's testimony may include presentation of the following exhibits:
 9. Advance Written Testimony of Vic Sheldon
 10. Resume of Vic Sheldon
 11. Technical Support Documentation for the Cross-State Air Pollution Rule for the 2008 Ozone NAAQS Docket ID No. EPA-HQ-OAR-2015-0500
- B. John Dutton's testimony may include presentation of the following exhibits:
 12. Advance Written Testimony of John Dutton
 13. Resume of John Dutton
 14. New Mexico Environment Department's Technical Spreadsheet "ICE-Reductions-andCosts-NO2-6-4-21.xls"
- C. Mark Copeland's testimony may include presentation of the following exhibits:
 15. Advance Written Testimony of Mark Copeland
 16. Resume of Mark Copeland

D. Raymond Carr's testimony may include presentation of the following exhibits:

17. Advance Written Testimony of Raymond Carr
18. Resume of Raymond Carr
19. FW Murphy SLS (Scrubber Level System) Gas Emissions Calculator Spreadsheet
20. FW Murphy Liquid Level Switches (LS200 Series)
21. FW Murphy Scrubber Level Control Systems
22. Report on Oil and Natural Gas Sector Pneumatic Devices, U.S. EPA Office of Air Quality Planning and Standards (April 2014)

E. Brendan Filby's testimony may include presentation of the following exhibits:

23. Advance Written Testimony of Brendan Filby
24. Resume of Brendan Filby

F. Randy Bartley's testimony may include presentation of the following exhibits:

25. Advance Written Testimony of Randy Bartley
26. Resume of Randy Bartley
27. New Mexico Air Quality Bureau, NSR & TV: *IC Engines Monitoring Protocol – Permit Template Language* at Note 3 (Version: May 23, 2016)
28. Advance Written Rebuttal Testimony of John Dutton
29. Pennsylvania GP-5, Exemption 38
30. Advance Written Rebuttal Testimony of Mark Copeland
31. 56 Fed. Reg. 21712 (May 10, 1991)
32. Advance Written Rebuttal Testimony of Mark Davis
33. Resume of Mark Davis

34. The Gas Compressor Association's Proposed Amendments to the following proposed regulations set forth in the Proposed Rule: 20.2.50.7; 20.2.50.122.B(3), Tables 1 & 2; 20.2.50.122.B(4) and 20.2.50.122.C(1), (3) & (4); 20.2.50.122.D(5) NMAC.
- G. Yet to be identified exhibits the GCA may use in rebuttal or sur-rebuttal.

Respectfully Submitted,

BRACEWELL LLP

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CERTIFICATE OF SERVICE

I hereby certify that on September 7, 2021, a true and correct copy of the foregoing *Notice of Intent to Present Direct Rebuttal Testimony* was served via electronic mail to the Hearing Officer and the following:

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**MODRALL, SPERLING, ROEHL, HARRIS
& SISK, P.A.**

By: /s/ Stuart R. Butzier

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IN THE MATTER OF:

PROPOSED NEW REGULATION

20.2.50 Oil and Gas Sector — Ozone Precursor Pollutants

No. EIB 21-27(R)

**PRE-FILED REBUTTAL TESTIMONY OF MR. JOHN DUTTON,
A WITNESS ON BEHALF OF THE GAS COMPRESSOR ASSOCIATION**

I. Introduction to My Testimony

My name is John Dutton. I am testifying as a technical witness on behalf of the Gas Compressor Association (GCA) in this proceeding. I previously filed direct testimony on behalf of the GCA, found at GCA Exhibit 12. My testimony supports the GCA's requested changes to the New Mexico Environment Department's (NMED's or the Department's) proposed engine emission standards set out as 20.2.50.113.B(2) NMAC and 20.2.50.113.B(3) NMAC in the NMED's proposed rule 20.2.50 NMAC (Proposed Rule). The GCA's requested changes to the parts of the Proposed Rule that are the subject of my testimony, the NOx emission standards for engines, are set forth in redline in GCA Exhibit 1.

The GCA reviewed the testimony and exhibits submitted by the NMED and other parties and believes that the information filed by the NMED supports a key part of my pre-filed direct testimony: that low emission combustion (LEC) technology has been developed over time for the existing engines to be regulated by the Proposed Rule, and has already been applied by manufacturers in their product offerings. Many existing four-stroke lean-burn (4SLB) engines already have LEC and, for that reason, can meet the 2.0 g/bhp-hr NOx standard proposed by the GCA for existing lean-burn engines greater than 1,000 horsepower (hp) (*see* GCA Ex.1). New engines are capable of 0.5 g/bhp-hr NOx or 0.3 g/bhp-hr NOx depending on the ability to use a

pre-combustion chamber, which is largely dependent on size or engine family. The ability to retrofit existing engines with the latest LEC technology is dependent upon make, model and vintage. In most existing engine applications, selective catalytic reduction (SCR) is not a viable option to achieve the proposed NOx emissions limits, nor is reduction of engine hours.

II. Existing Lean-Burn Engines – Proposed NOx Emission Standard

Witnesses for the NMED testified that “[t]he proposed NOx limit of 0.50 grams per brake horsepower per hour (g/bhp-hr) for existing lean burn engines greater than 1,000 horsepower is based on the use of low emission combustion retrofit, or the addition of a SCR control system.” NMED Ex. 32 at p. 37 (emphasis added). Both of these control strategies (LEC retrofit and addition of SCR) have limitations that prevent broad application to existing lean-burn engines, and for that reason, neither control strategy provides a reasonable basis for the 0.5 g/bhp-hr NOx standard for existing lean-burn engines > 1000 bhp in the Proposed Rule. *See* Proposed Rule 20.2.50.113.B(2) NMAC, Table 1. I will address both control strategies below.

A. Low Emission Combustion (LEC) Retrofit

The assumption that LEC technology can be broadly applied to existing lean- burn engines is incorrect. Whether an existing engine already employs LEC technology is generally make-, model-, and vintage-specific – and the same is true for whether an existing engine could be retrofitted with LEC. As explained in greater detail below, many existing lean-burn engines are not capable of achieving additional emission reductions through the application of LEC technology, because that LEC technology is already incorporated into the engine.

41 **1. Engine Upgrades Like Those Provided by Cooper Machinery Services**
42 **are Not Available for Most Large Lean-Burn Engines Operating in**
43 **New Mexico**

44 In support of the Proposed Rule’s NOx standard for existing lean-burn engines, NMED’s
45 witnesses reference the marketing materials of Cooper Machinery Services, which advertises
46 engine upgrades to meet 0.5 g/bhp-hr NOx. *See* NMED Ex. 32, at p. 37 (“Cooper Machinery
47 Services advertises that they offer engine upgrades that will allow engines to meet a NOx limit of
48 0.5 g/bhp-hr NOx for all Clark, Cooper-Bessemer, and Ingersoll Rand slow speed engine
49 models.”). A review of the NMED’s Exhibit 56, *ERG – ICE Reductions and Costs NO₂*
50 *Spreadsheet*, shows that the Cooper Machinery Services modifications would be available for less
51 than 3% of existing lean-burn engines over 1,000 horsepower. I sorted the engines listed on the
52 NMED’s Exhibit 56 by engine manufacturer: less than 3% of the engines included on Exhibit 56
53 are from the three manufacturers (Clark, Cooper-Bessemer, and Ingersoll Rand) identified by
54 Cooper Machinery Services. The engine upgrades marketed by Cooper Machinery Services
55 marketing materials should not be viewed as widely available for the existing lean-burn engines
56 operating in New Mexico.

57 Furthermore, LEC technology has already been applied by the manufacturers of high-speed
58 separable engines over the last 20 years and cannot be “applied again.” The type of engine
59 modifications advertised by Cooper Machinery Services are not available to the vast majority of
60 existing lean-burn engines > 1,000 bhp that will be subject to the Proposed Rule. The Cooper
61 Machinery Services materials in NMED Exhibit 46 do not support an emission standard of 0.5
62 g/bhp-hr NOx for existing lean-burn engines.

64 **2. Pennsylvania General Permit GP-5 Should Not Be Viewed as**
65 **Establishing a NOx Emission Limit for All Existing Engines**

66 The NMED's witnesses also cite the State of Pennsylvania's General Permit for Natural
67 Gas Compression Stations, Processing Plants, and Transmission Stations (GP-5) in support of the
68 proposed NOx standard. *See* NMED Ex. 32, at p. 37. The NMED testimony in Exhibit 32 states
69 that the proposed 0.5 g/bhp-hr NOx standard "is the same limit as that used in Section C of
70 Pennsylvania GP-5 for natural gas-fired spark ignition engines greater than 500 hp authorized to
71 operate on or after February 2, 2013." *Id.* By 2013, LEC technology for new engines had advanced
72 to the point where 0.5 g/bhp-hr NOx was achievable, and is still the level achievable today for
73 many new lean-burn engines less than 1,875 horsepower. This emission standard that applies to
74 post-2013 engines under GP-5 should not be applied to all existing engines. In fact, Pennsylvania
75 GP-5 acknowledges this distinction, and establishes a separate, 2.0 g/bhp-hr NOx limit for engines
76 authorized to operate between March 10, 1997 and February 2, 2013. *See* NMED Ex. 37, at p. 12.
77 Moreover, the Pennsylvania permitting program separately includes Exemption 38, which, as
78 described more fully in Section IV below, provides another option for authorizing existing engines
79 that cannot meet the NOx emission standards in GP-5. *See* GCA Ex. 29 at p.10, 12 (emissions-
80 based engine authorization options in Pennsylvania Exemption 38(b) and (c)).

81 The Pennsylvania GP-5 NOx limit of 2.0 g/bhp-hr NOx is consistent with the
82 recommendation by the GCA for existing lean-burn engines. The NOx standards in Pennsylvania
83 GP-5 do not provide a reasonable basis for establishing a NOx emission standard of 0.5 g/bhp-hr
84 for all existing lean-burn engines > 1,000 bhp.

86 **3. The Ohio EPA Engine Test Data Shows that the Proposed Standard is**
87 **Not Readily Achievable Even Though LEC Technology is Already**
88 **Widely Employed**

89 The NMED's witnesses also cite emissions test summaries from the Ohio Environmental
90 Protection Agency (Ohio EPA) in support of the Proposed Rule's NOx emission standard for lean-
91 burn engines. *See* NMED Ex. 32, at p. 42. The NMED testimony references Ohio emission test
92 summaries for the years 2003 to 2016 and concludes, "[t]hese Ohio EPA test data shows that the
93 proposed emission limits for existing lean burn and rich burn engines are readily achievable."
94 NMED Ex. 32, at p. 42. The Ohio EPA test, included at NMED Exhibit 51, data does not support
95 that conclusion – in fact, it shows how many of the engines tested in Ohio could not comply with
96 the NOx standard in the Proposed Rule.

97 As noted above, the NMED's Proposed Rule would establish an emission standard for
98 existing lean burn engines over 1,000 horsepower at 0.5 g/bhp-hr. Further, as proposed, any engine
99 "installed" after the effective date of the rule would be considered "new" and would then be subject
100 to 0.3 g/bhp-hr. (*See* GCA Ex. 12, at p. 12-14 (Direct Prefiled Testimony of John Dutton regarding
101 using date of manufacture rather than installed date in 20.2.50.113.B NMAC). I created the graph
102 below labeled Figure 1 using the Ohio EPA NOx testing data included in NMED Exhibit 51. The
103 graph depicts the Ohio EPA NOx test results for four-stroke lean-burn (4SLB) engines. The data
104 shows that a majority of the 4SLB engines over 1,000 horsepower emitted NOx at levels that
105 would meet the 0.5 g/bhp-hr limit for existing engines in the Proposed Rule – though a significant
106 number of the engines above 1,000 horsepower would not meet the proposed standard of 0.5 g/bhp-
107 hr NOx.

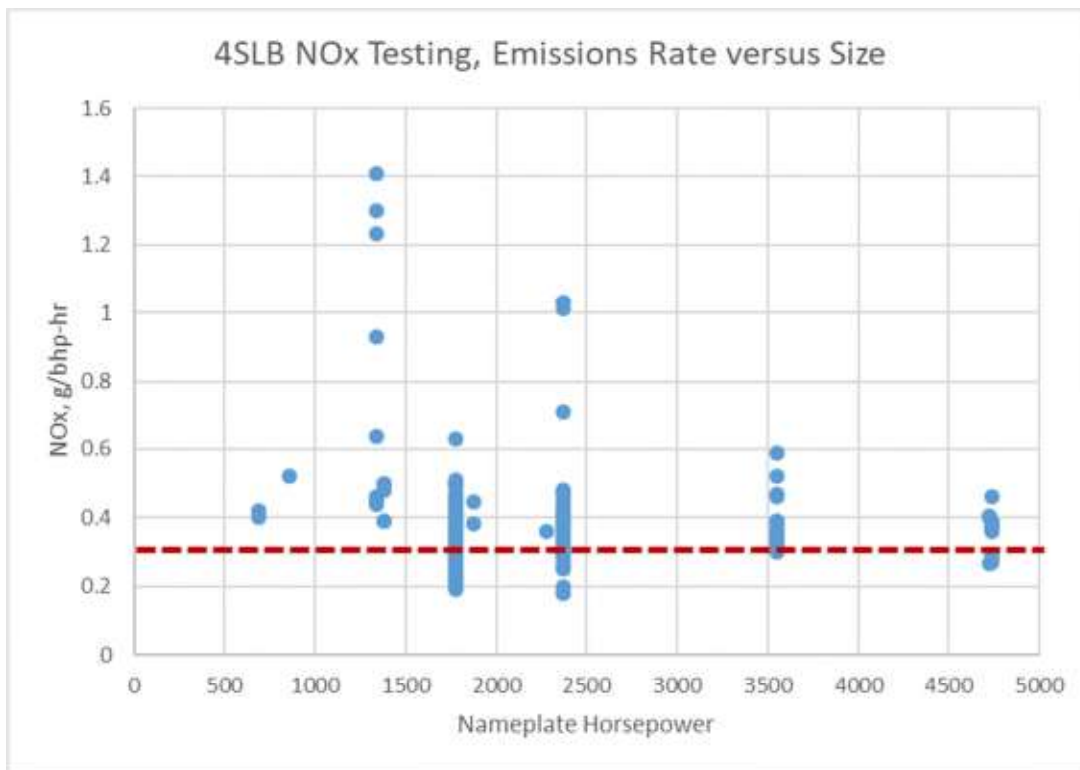
108 The data further shows that a majority of the 4SLB engines tested over 1,000 horsepower
109 emitted NOx at levels that did not meet the NMED's proposed standard of 0.3 g/bhp-hr NOx for

Pre-Filed Rebuttal Testimony of Mr. John Dutton
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“new” engines installed after the effective date of the rule. Existing engines used in the compression services industry are commonly moved to new locations – they are not “new” engines in any sense of the word, other than how NMED has defined the category for purposes of proposed 20.2.50.113.B(3), Table 2 NMAC. The test data depicted in Figure 1 demonstrates that the way that the Proposed Rule defines the applicable engine groups, along with the proposed NOx emission standards, creates a standard for which compliance will not be feasible.

At the same time, the Ohio EPA test data reflects that the existing engines tested – even if many of the engines could not comply with a NOx standard of 0.5 g/bhp-hr – already employ LEC technology. The NOx emission rates reflected on Figure 1 are significantly lower than would be expected if testing engines that did not already use LEC technology to reduce NOx emissions, as shown by the EPA report discussed in section 4 below.

Figure 1



123 **4. EPA’s September 2000 Engine Report on Engine Emissions and**
124 **Control Techniques Does Not Support the Proposed Standards for**
125 **Existing Engines**

126 The NMED’s Exhibit 48 is a document issued in 2000 by the U.S. EPA titled “Stationary
127 Reciprocating Internal Combustion Engines: Updated information on NOx Emissions and Control
128 Techniques,” Publication No. EPA-457/R-00-001 (September 2000) (EPA Engine Report). There
129 are multiple reasons why this report and its conclusions should not be applied broadly to existing
130 4SLB engines as low as 1,000 horsepower, and why the EPA Engine Report does not support the
131 emission standard for NOx from existing engines in the Proposed Rule.

- 132 • First, the population of engines covered by the EPA Engine Report is not
133 representative of the engines that will be regulated by the Proposed Rule. Page 1-
134 1 of the report states, “[t]his report focuses on the natural gas transmission and
135 storage industry” and states in the introduction to the discussion of uncontrolled
136 NOx emission rates on page 3-1 that the engines are “fired on pipeline-quality
137 natural gas.” *See* NMED Ex. 48, at p. 1-1 and 3-1. This group of engines would
138 likely be comparable to the 2.8% of the population of existing engines for which an
139 LEC retrofit from Cooper Machinery Services would be an option, as discussed
140 above relating to NMED Exhibit 46. Those are not the same engines operated by
141 members of the GCA and that would be regulated by the Proposed Rule. The vast
142 majority of the engines used in compressor packages are high-speed, separable
143 design engines that are deployed in the upstream and midstream segments, that
144 operate at variable loads, and that are fired with field gas rather than pipeline quality
145 natural gas.

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- The EPA Engine Report's cost-effectiveness assumptions were based on an assumed uncontrolled emissions level of 16.8 g/bhp-hr NO_x. *See* NMED Ex. 48, at p. 3-9 & 3-10. An uncontrolled NO_x emission rate at that level means that no LEC technology had been applied. However, even in 2000, the EPA acknowledged the trend that LEC technology was being applied by engine manufactures. The EPA Engine Report states that "[m]any lean-burn engine models currently in production incorporate low-NO_x technology. In fact, the term 'lean burn' is often used today to refer to what we have defined as LEC technology for the purposes of this report." NMED Ex. 48, at p. 3-9. As I stated in my direct pre-filed testimony in this matter, it is not appropriate to assume a 49% reduction across all engines by applying LEC to engines that already have it incorporated in their design. *See* GCA Ex. 12, at p. 9-10 (Pre-Filed Direct Testimony of John Dutton). Many existing 4SLB engines deployed in New Mexico already have NO_x emissions levels at or below 2.0 g/bhp-hr (as opposed to the EPA assumption of 16.8 g/bhp-hr for uncontrolled engines) which evidences that the LEC technology has already been applied to those engines. With a much-lower starting point as far as NO_x emissions, accomplishing further incremental reductions from those existing, already low-emitting engines to achieve the NO_x standard in the Proposed Rule would have a far greater cost per ton of NO_x reductions and would not be cost-effective.
- The EPA Engine Report also acknowledges pre-chambered engine design as distinct from other LEC technology: "In fact, the 1997 draft AP-42 section defined 2-stroke and 4-stroke 'clean burn' engines (i.e., engines equipped with LEC precombustion chamber technology) as separate engine families, distinct from

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169 other 2-stroke and 4-stroke lean-burn engines.” NMED Ex. 48, at p. 3-9. This
170 reference to engines with precombustion chambers as a “separate family” from
171 other engines supports the pre-filed direct testimony I filed, as well as the pre-filed
172 direct testimony of GCA witness Vic Sheldon, that there is a fundamental
173 difference between the Caterpillar 3500 and Caterpillar 3600 engine families. *See*
174 GCA Ex. 12, at p. 8-9 (Pre-Filed Direct Testimony of John Dutton); GCA Ex. 9, at
175 p. 9-11 (Pre-Filed Direct Testimony of Vic Sheldon). The EPA’s characterization
176 of the precombustion chamber-equipped engines as a “separate family” further
177 supports the position set forth in my prefiled direct testimony: the NMED’s
178 selection of 1,000 horsepower as the size cutoff for more-stringent engine
179 emissions standards for new engines in Table 2 of proposed 20.2.50.113.B(3) is
180 arbitrary and inappropriate, because that cutoff does not fall on any class/vintage
181 break in engine manufacturing.

- 182 • The EPA Engine Report presents emissions test data that does not support the
183 NMED’s NOx emission standards for existing engines. As noted above, the
184 Proposed Rule would establish a NOx emission standard of 0.5 g/bhp-hr for
185 existing engines > 1,000 horsepower. The EPA Engine Report (NMED Exhibit
186 48), also described in the testimony of NMED’s witnesses on pages 38-39 of
187 NMED Exhibit 32, describes the results of NOx emissions tests of existing engines
188 with LEC technology. Those emissions tests showed that 97% of the engines tested
189 were able to achieve less than 2 g/bhp-hr NOx (the GCA recommendation for a
190 NOx standard for existing engines), but that only 25% of the engines tested
191 achieved 0.5 g/bhp-hr NOx (the NMED proposed emissions limit). NMED Ex. 48

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at p. 2-2; NMED Ex. 32, at p. 38-39. An emission standard designed to ensure existing engines employ LEC technology should not be set at a point at which 75% of existing engines that employ LEC technology are noncompliant.

5. NMED Testimony regarding the Applicability of the Proposed Rule's Compression Ignition Engine Emission Standards

As stated above, as well as in my direct pre-filed testimony in this matter, I believe that the NMED included an unreasonable and arbitrary cutoff in the Proposed Rule by making the “new engine” emissions standards for spark-ignition engines dependent on the date that the engine is constructed, reconstructed, or installed. See Proposed Rule at 20.2.50.113.B(3), Tables 1 & 2; GCA Ex. 12 at p. 12-14 (Pre-Filed Direct Testimony of John Dutton). The NMED witnesses’ own description of the applicability of the standards to compression-ignition engines (i.e., diesel engines) highlights the disparity in the Proposed Rule’s treatment of spark-ignition and compression-ignition engines, from an applicability perspective.

The NMED’s witnesses state that the Proposed Rule establishes emissions standards for compression-ignition engines testimony as either new or existing engines “depending upon the construction date of the units.” NMED Ex. 32, at p. 36. By contrast, “installation” of an engine is a trigger for new-source standards for spark-ignition engines under the Proposed Rule. As pointed out in the my direct testimony, construction date of the engine (that is, the date the engine was manufactured) is a factor for spark-ignition, lean-burn engines because much LEC technology was developed over time and is already included in newer engines. In establishing the applicability criteria for new and existing spark-ignition engines in the final rule, the NMED should give spark-ignition engines the same consideration of manufacture date that it has apparently given to

compression-ignition engines and, similarly, should exclude the consideration of “installation date” for purposes of determining which emission standard will apply.

B. Selective Catalytic Reduction (SCR) Controls

SCR should not be considered a viable option to control NOx emissions from existing lean-burn engines. As stated in the NMED’s witness testimony in NMED Exhibit 32, the NMED relied on Pennsylvania General Permit-5 (GP-5) for NMED’s best available technology (BAT) determination for engine emissions. NMED Ex. 32, at p. 37. However, in the development of GP-5, the Pennsylvania Department of Environmental Protection (PADEP) concluded that SCR was not economically feasible on engines smaller than 2,370 horsepower. In the technical support document for GP-5, included by NMED as NMED Exhibit 52, the PADEP concludes: “the control cost for SCR for lean-burn engines greater than or equal to 500 bhp but less than 2,370 bhp is estimated between \$11,792 and \$24,541 per ton of NOx reduced. Therefore, the Department determines that SCR is not BAT for lean-burn engines greater than or equal to 500 bhp but less than 2,370 bhp because it is not economically feasible.” NMED Ex. 52, at p. 36. The PADEP determined that SCR is not economically feasible for NOx reductions from engines smaller than 2,370 hp, but the NMED – while purportedly relying upon PADEP’s GP-5 NOx standard in developing the Proposed Rule – has cited SCR as the basis for the proposed NOx limit for all existing engines greater than 1,000 hp.

While the PADEP found that SCR was not economically feasible for engines between 500 and 2,370 horsepower, it also concluded that Pennsylvania GP-5 should keep a NOx limit of 0.5 g/bhp-hr for those engines. *See* NMED Ex. 52, at p. 36. It is important to recognize the difference, however, between the permit limits established in GP-5 and the regulatory standards that will be established in 20.2.50.113 NMAC. The Pennsylvania GP-5 NOx limits apply to engines

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237 authorized under the permit, and do not apply to all existing engines in the state, regardless of
238 vintage. By contrast, the Proposed Rule will establish NOx standards that apply to all existing
239 engines in New Mexico, regardless of vintage. The State of Pennsylvania also offers other
240 mechanisms, such as Exemption 38 discussed below, that can authorize an engine that does not
241 meet the NOx limit in GP-5. The Proposed Rule and Pennsylvania GP-5 is not an apples-to-apples
242 comparison, and the NOx emission limits in GP-5 do not have the same broad applicability to
243 existing engines that will be seen in New Mexico under 20.2.50.113 NMAC.

244 The NMED's witnesses discussed the costs of engine NOx reductions on pages 52-54 of
245 Exhibit 52, the Direct Testimony of Elizabeth Bisbey-Kuehn and Brian Palmer, and also filed
246 Exhibit 56, *ICE Reductions and Costs NO₂ Spreadsheet*. While the NMED states that it has based
247 its NOx emission standard for existing engines on the use of SCR, the NMED's own cost analysis
248 in Exhibit 56 shows that the costs of reductions based on the use of SCR for engines rated 750-
249 1,200 horsepower were in excess of \$10,000 per ton. *See* NMED Ex. 56, *SCR NSCR Cost Factors*
250 tab, cell B29. Moreover, these cost estimates and nearly all data evaluating the use of SCR on
251 spark-ignition engines is based on "estimates" or extrapolated data, because SCR is very rarely
252 used on the engines that are deployed in the oil and gas industry.

253 In support of the Proposed Rule, the NMED's witnesses also referenced three very large
254 (3,130 bhp) lean-burn engines that successfully utilized SCR technology and for which a series of
255 1997 emissions tests demonstrated NOx limits below 0.5 g/bhp-hr. NMED Ex. 32, at p. 39 (citing
256 NMED Ex. 48, at p. 4-15). As noted in the EPA Engine Report that is NMED Exhibit 48, however,
257 those same SCR-equipped engines exceeded the applicable VOC standard during the January 1997
258 testing, and the catalyst had to be checked and cleaned before the engine passed the VOC test in
259 subsequent testing. *See* NMED Ex. 48, at p. 4-15. The EPA Engine Report gives other examples

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of engines failing tests using SCR. *See* NMED Ex. 48, at p. 4-14. It is not appropriate to take such a very small sample (3 engines) that are very specific (large size) and assume it can be broadly applied to thousands of engines as small as 1000 hp that are sited at remote locations with varying load and fuel quality. With regard to SCR, the EPA Engine Report states, “[t]hese test results indicate that SCR can achieve design NOx control levels during short-term emissions tests, including, in the case of the VCAPCD data, multiple tests on the same engine of the course of several years. However, these test results do not directly address performance during engine load swings. Continuous emissions data are necessary to address this issue fully.” NMED Ex. 48, at p. 4-15. The EPA Engine Report references one 10-minute plot of continuous data for a heavy-duty diesel truck engine, and relies heavily on the claims of SCR vendors rather than actual test data. *See* NMED Ex. 48, at p. 4-14 to 4-15. While SCR may be applied in specific circumstances where there is no alternative to reduce NOx emissions, it has been shown to be a prohibitively expensive means of NOx control from spark-ignition engines, and is not an appropriate basis for the NMED in establishing engine NOx emissions standards in a rule that will have widespread applicability.

Finally, perhaps one of the most important factors regarding the calculation of cost-per-ton of NOx reductions using SCR is the underlying assumption of long-term deployment. Most of the compressor packages used by members of the GCA to provide compression services in New Mexico and other states are not permanent installations. These compressor packages are built to be moved easily and GCA members try to satisfy their customers’ contract compression needs utilizing the minimum horsepower necessary to satisfy those needs, which in turn minimizes emissions. Dismantling, moving and reassembling SCR systems would add significantly to the cost of employing SCR. It is my opinion that SCR systems are generally used as a last resort at large, manned facilities with electricity, and are not viable for most of the smaller, remote,

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upstream and midstream sites lacking electricity where the GCA members provide compression services in New Mexico.

C. The NMED's Suggested Reduced-Hours Compliance Option is Not Available for the Engines Supplied by the GCA

In its description of the emissions standards for existing spark-ignition engines, the NMED's witnesses state, "[i]n lieu of meeting the emissions limits, owners and operators may reduce the number of hours of operation in order to reduce emissions to rates similar to the emissions reduction requirements achieved by utilizing emission control devices. This option provides an alternative method of compliance for engines that are difficult to retrofit, while ensuring equivalent emissions reductions." NMED Ex. 32, at p. 36. For many engines, including those in the GCA members' compressor packages, this "alternative method of compliance" is of no value.

For the engines in the gas compression packages utilized by GCA members, running the engine fewer hours is not an option, as our customers require our compression services to transport their natural gas and, as such, expect our compression packages to run continuously. The amount the compressor engine is run is dictated by production, which is often 24 hours per day, seven days a week. Gas compressor engines are expensive to operate so our gas compression services can be expensive, and as a result, our customers do not want to employ those services unless needed (*i.e.*, whenever production is available for compression and transportation). When compression is needed, the need is continuous and the engines operate full-time. The nature of how compressor engines are used in the field eliminates running fewer hours as any form of alternative method of compliance.

III. New Lean-Burn Engines – Proposed NOx Emission Standard

Proposed Rule 20.2.50 NMAC also establishes emission standards for new lean-burn engines. The Proposed Rule would establish a NOx emission standard of 0.50 g/bhp-hr for new lean-burn engines between 500 and 1,000 horsepower, and a NOx emission standard of 0.30 g/bhp-hr uncontrolled or 0.05 g/bhp-hr that are 1,000 horsepower or greater. Proposed Rule at 20.2.50.113.B(2), Table 1 and 20.2.50.113.B(3), Table 2, NMAC.

A. There is No Basis for the Proposed Rule’s Size Thresholds

In the 2020 pre-proposal draft of 20.2.50 NMAC, the NMED had originally set the threshold for the more-stringent 0.3 g/bhp-hr emission standard at 2,370 horsepower, which was consistent with the best available technology (BAT) determination reflected in Pennsylvania’s GP-5. *See* NMED Ex. 37, at p. 13. In the Proposed Rule, however, the NMED lowered the horsepower threshold from 2,370 to 1,000 horsepower. The new, lower threshold of 1,000 horsepower for the application of the most-stringent NOx emission standard for lean-burn engines is arbitrary and technically infeasible. My rebuttal testimony addresses the technical infeasibility of achieving the 0.3 g/bhp-hr NOx standard in the Proposed Rule using LEC for engines below 1,875 horsepower.

The 1,000 horsepower threshold for applying the 0.3 g/bhp-hr NOx standard for new engines in the proposed rule would impact the ability to use certain new, low-emitting lean-burn engines that employ BAT, which is why the GCA requested that the NMED raise the threshold to 1,875 horsepower. For smaller-bore engines such as the Caterpillar 3500 series that are below 1,875 horsepower, pre-combustion technology does not exist, and those engines have not-to-exceed limits on NOx of 0.5 g/bhp-hr. The Pennsylvania GP-5 BAT determination utilized 2,370 horsepower as the size cut-off for applying 0.3 g/bhp-hr, which inherently takes into account the design limitations for the CAT 3500 family of engines and the PADEP’s determination that SCR

was not cost-effective for engines less than 2,370 horsepower. In its July 28, 2021 filing in this matter, the GCA proposed a threshold of 1,875 horsepower for the more-stringent NOx emission standard for new lean-burn engines – provided that relocation (“installation”) does not convert an existing engine subject to Table 1 into a new engine that is subject to the emission standards of Table 2.

IV. Reliance on Pennsylvania GP-5 Ignores Pennsylvania’s Alternate Paths to Compliance

The NMED’s reliance on Pennsylvania GP-5 for establishing NOx emission standards for engines also ignores an important exemption from the Pennsylvania permit’s emission standard that is available to smaller engines that cannot comply with the emission standards in GP-5. As an alternative to authorization under GP-5 and compliance with the GP-5 NOx emission standards, Pennsylvania has promulgated Permit Exemption 38 for existing oil and gas exploration and production activities. *See* GCA Ex. 29 at p. 8-13. Exemption 38 establishes an alternate path for permitting of stationary engines at wellheads using proven and readily available control technology. Pennsylvania GP-5 is not absolute; Exemption 38 provides an alternative to the emissions standards in GP-5 for certain smaller engines. By contrast, the NMED’s proposed NOx emission standards for existing engines are absolute, and they apply to all engines regardless of location, whether at wellhead, compressor station, or otherwise. For example, in Pennsylvania, engines up to 1380 HP can qualify for authorization under Exemption 38 with NOx emissions of 0.5 g/bhp-hr. Without an alternative emission standard or exemption from the Proposed Rule, the NMED will establish engine emission standards that lack this key aspect that ensures compliance flexibility in Pennsylvania. While the GCA is not seeking a similar exemption from the Proposed Rule, the GCA’s requested changes to both the size threshold and emission standards in the

Proposed Rule will ensure that the rule requires the use of BAT while not unreasonably eliminating an owner or operator's ability to operate certain low-emitting engines.

V. Conclusion

The testimony and exhibits filed by the NMED on July 28 contain support for key aspects of the GCA's testimony:

- LEC technology has already been applied to existing lean-burn engines, and cannot feasibly be "applied again" to achieve another 49% reduction in emissions.
- Pre-combustion chamber technology is a differentiating factor to achieve NOx levels below 0.5 g/bhp-hr and horsepower groupings should take engine families and vintages into account such as the Caterpillar 3500 and 3600 families of engines. The NMED should use 1,875 horsepower as the threshold for applying the most-stringent NOx emission standard to new lean-burn engines, consistent with current technology, and not an arbitrary 1,000 horsepower cut-off – provided that relocation does not convert an existing engine into a "new" engine.
- SCR is not a realistic or cost-effective control strategy for many large lean-burn engines in use in New Mexico.
- In sourcing parts of the Proposed Rule, parts of Pennsylvania GP-5 have been applied out of context to different horsepower classes, and the NMED's consideration of Pennsylvania's approach should also account for the compliance flexibility offered in Pennsylvania, such as Exemption 38, which keeps GP-5 from being overly burdensome when applied broadly.

This concludes my pre-filed rebuttal testimony in this matter.

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Air Quality

DOCUMENT NUMBER: 275-2101-003

TITLE: Air Quality Permit Exemptions

EFFECTIVE DATE: July 1, 2021

AUTHORITY: Air Pollution Control Act (APCA), 35 P.S. § 4001 et seq. and 25 Pa. Code § 127.14 (relating to exemptions)

POLICY: Plan Approval and Operating Permit Exemptions

PURPOSE: This document provides criteria for sources and physical changes to sources determined to be eligible for permitting exemptions as sources of minor significance.

APPLICABILITY: Staff/Regulated Public

DISCLAIMER: The policies and procedures outlined in this guidance are intended to supplement existing requirements. Nothing in the policies or procedures shall affect regulatory requirements.

The policies and procedures herein are not an adjudication or a regulation. DEP does not intend to give this guidance that weight or deference. This document establishes the framework, within which DEP will exercise its administrative discretion in the future. DEP reserves the discretion to deviate from this policy statement if circumstances warrant.

PAGE LENGTH: 24 pages

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**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR QUALITY**

**NOTICE
Plan Approval and Operating Permit Exemptions**

Consistent with the applicable provisions of the Pennsylvania Air Pollution Control Act (APCA), 35 P.S. § 4001 et seq. and 25 Pa. Code § 127.14 (relating to exemptions), the Department of Environmental Protection (Department or DEP) may determine sources or classes of sources to be exempt from the plan approval and permitting requirements of 25 Pa. Code Chapter 127 (relating to construction, modification, reactivation and operation of sources). This guidance document identifies the following:

- exemptions under § 127.14(a) and exemptions under § 127.14(a)(8) that do not require submission of a Request for Determination (RFD) form;
- exemption criteria that the Department may use when an owner or operator of a source or facility is seeking an exemption from plan approval;
- further qualifications regarding plan approval exempted sources; exemptions under § 127.14(a)(9) related to physical changes; and
- exemption criteria for operating permits.

This amended guidance document is applicable to sources that will be constructed as new or modified sources after the effective date of this document. It does not apply to sources that were constructed or modified prior to the effective date of this guidance document and operating lawfully without a permit. Sources exempted from plan approvals are not automatically exempted from operating permit requirements.

A Plan Approval is written approval from DEP's Air Quality Program required before an owner or operator of a facility can begin to construct, modify, or operate a source, emissions unit or equipment emitting air contaminants in Pennsylvania. Plan approval applications are submitted to the appropriate DEP regional office and are required to be approved before construction or modification commences. However, not all air contamination sources require a plan approval or operating permit; some may be exempt under Department regulations, and some may be granted an exemption on a case-by-case basis. The process used to obtain a case-by-case exemption requires that an RFD form be submitted, which is the mechanism by which the Department evaluates a case-by-case exemption request.

Some exemptions require prior written notification. Written notifications are not RFDs and have no fee associated with them. The notifications must contain all information necessary for DEP to evaluate the exemption status of the project, including identification of the sources and/or control devices, emission calculations, and operating parameters, as well as any necessary supporting documentation. All notifications are to be submitted through mail or e-mail to the appropriate DEP Regional Air Program Manager.

Some exemptions allow for alternative methods based on Department approval ("Any other method approved by the Department"). A request to use an alternative method not yet approved by the Department is to be submitted to the appropriate DEP Regional Air Program Manager. The owner or operator cannot use the alternative method until written approval from DEP has been granted.

Words and terms that are not defined in this document have the meaning set forth in 25 Pa. Code § 121.1 (relating to definitions) or the APCA (35 P.S. § 4003), 25 Pa. Code Chapters 121 - 145 and applicable definitions codified in the Code of Federal Regulations (CFR), including 40 CFR Parts 60 and 63.

Qualifications Regarding Exempted Sources

1. This notice shall not be construed to exempt facilities that include multiple sources of air contaminants, unless specifically stated in the source category.
2. The addition of any source that would subject the facility to major source New Source Review or Prevention of Significant Deterioration, Title V or Reasonably Available Control Technology (RACT) requirements shall comply with plan approval requirements, even if such sources are within a category in the below list.
3. Sources exempt from plan approval may be required to be included in the operating permit if the source is not included in the trivial activity listing.
4. Sources located in Allegheny and Philadelphia Counties may be subject to different permitting requirements. Please contact the Allegheny County Air Quality Program or the Philadelphia Air Management Services for information applicable to sources located in those counties.
5. Any sources claiming an exemption based on rated capacity or emission thresholds must keep adequate records to clearly demonstrate to the Department that the applicable thresholds are not exceeded. The records must be kept for five (5) years and be made available to the Department upon request.
6. All air contamination sources, and air pollution control devices must be operated in a manner consistent with the manufacturer's specifications and good engineering practice.

These determinations do not exempt the below-listed sources from compliance with the emission limitations, work practice, and other applicable requirements contained in Chapters 121, 122, 123, 124, 127, 129, and 135. Although a source may be exempt from the plan approval and operating permit requirements of Chapter 127, the source is subject to all other applicable air quality regulations. For example, combustion units exempt from the requirements of Chapter 127 are not exempt from the opacity limitations of § 123.41 or the emission limitations of § 123.22. Storage vessels for organic compounds with capacities between 2,000 gallons to 40,000 gallons, not subject to the requirements of Chapter 127, must install pressure relief valves in accordance with the requirements of § 129.57. (Note: Storage vessels in this size range would also not be subject to the requirements of §§ 129.59 and 129.60.)

If the Department determines that any exempted source is causing air pollution in violation of Section 8 of the Air Pollution Control Act, 35 P. S. § 4008, or 25 Pa. Code § 121.7, the Department may order the installation of additional air cleaning devices. In those cases, plan approvals and operating permits may be required.

Requests for exemptions from the plan approval requirements of Chapter 127 for multiple source facilities must be considered on a case-by-case basis, unless otherwise noted within the exemption category.

As noted in Category 44 of the list, additional exemptions, when appropriate, may be obtained through the submission of a completed RFD form. These forms are available from any of the Department's Air Program offices and on the DEP website at www.dep.pa.gov under the Air Quality page.

Listing of Plan Approval Exemptions

Section 127.14(a) Exemptions that do not require the submission of an RFD form

In accordance with § 127.14(a), approval is not required for the construction, modification, reactivation, or installation of the following:

1. Air conditioning or ventilation systems not designed to remove pollutants generated by or released from other sources.
2. Combustion units rated at 2.5 million or less Btus per hour of heat input.
3. Combustion units with a rated capacity of less than 10 million Btus per hour of heat input fueled by natural gas supplied by a public utility or by commercial fuel oils which are No. 2 or lighter - viscosity less than or equal to 5.82 C St -- and which meet the sulfur content requirements of § 123.22 (relating to combustion units). Combustion units converting to fuel oils which are No. 3 or heavier-viscosity greater than 5.82 C St or contain sulfur in excess of the requirements of § 123.22 require approval. For the purpose of this section, commercial fuel oil shall be virgin oil which contains no reprocessed, recycled, or waste material added. *See Section 127.14(a)(8) Exemption Category #39 for combustion units fired by LPG/propane or pipeline quality natural gas.*
4. Sources used in residential premises designed to house four or less families.
5. Space heaters which heat by direct heat transfer.
6. Mobile sources.
7. Laboratory equipment used exclusively for chemical or physical analyses.
8. Other sources and classes of sources determined to be of minor significance by the Department.

Section 127.14(a)(8) Exemptions that do not require the submission of an RFD form

The following is a list of those sources and classes of sources determined, in accordance with § 127.14(a)(8), to be exempt from the Plan Approval requirements of §§ 127.11 and 127.12. The commencement of construction of sources is exempted from the plan approval requirements provided the following exemption criteria are met. Unless labeled otherwise, emission rates are to be considered actual tons per year (tpy). Note that certain exceptions and qualifications regarding this list are contained in the discussion that precedes the list.

1. Reserved.
2. Sources of only particulate matter with fabric collectors, cartridge collectors or scrubbers designed using good engineering practices and manufactured as an integral part of the design and

which have exhaust volumes equal to or smaller than 5,000 scfm. Concentration of particulate matter emissions may not exceed 0.01 gr/dscf from the fabric collector, cartridge collector, or scrubber stack. Hazardous Air Pollutant (HAP) emissions may not exceed 1000 lbs/yr of a single HAP or one tpy of a combination of HAPs that does not include chromium, mercury (Hg) or lead (Pb).

3. Combustion turbines rated at less than 1,000 horsepower. This category does not apply to newly installed turbines of a model year that is not within five years of the installation date unless the turbine meets the applicable New Source Performance Standard emission rates that apply to a newly manufactured turbine.
4. Internal combustion engines rated at less than 100 brake horsepower. This category does not apply to newly installed engines of a model year that is not within five years of the installation date unless the engine meets the applicable New Source Performance Standard emission rates that apply to a newly manufactured engine.
5. Portable, temporary internal combustion engines used for 14 days or less at special events (such as county fairs, circuses, and concerts).
6. Internal combustion engines regardless of size, with combined NOx actual emissions less than 100 lbs/hr, 1000 lbs/day, 2.75 tons per ozone season and 6.6 tons per year on a 12-month rolling basis for all exempt engines at the site. This category does not apply to newly installed engines of a model year that is not within five years of the installation date unless the engine meets the applicable New Source Performance Standard emission rates that apply to a newly manufactured engine. The emission criteria do not include emissions from sources which are approved by the Department in plan approvals or the general plan approvals/general operating permits at the facility. This category does not apply if an add-on air cleaning device, such as selective catalytic reduction (SCR), is installed. Note Category 38 addresses oil and gas facilities.
7. Natural gas-fired heat-treating furnaces with less than 10 million Btus per hour heat input (fuel burning emissions only). HAP emissions may not exceed 1000 lbs/yr of a single HAP or one tpy of a combination of HAPs. The HAPs may not contain Polychlorinated Biphenyls (PCBs), Chromium (Cr), Mercury (Hg), Lead (Pb), Polycyclic Organic Matter (POM), Dioxins or Furans.
8. Steam aspirated vacuum degassing of molten steel.
9. Coal-handling facilities processing less than 200 tons per day. (Thermal coal dryers and pneumatic coal cleaners remain subject to the requirements of § 127.11). This exemption includes internal combustion engines meeting the criteria for plan approval exemption described in Category 6 above.
10. Wet sand and gravel operations (screening only) and dry sand and gravel operations (including crushers) processing unconsolidated materials with a rated capacity of less than 150 tons per hour.
11. Coal and non-metallic mineral-handling activities directly associated with either deep or surface mines that consist only of conveyors and non-vibratory screens (aka grizzlies). This exemption includes internal combustion engines meeting the criteria for plan approval exemption described in Category 6 above.

12. Portable crushers that are controlled with properly located water sprays or with fabric filters, operated during daylight, and located on a site for less than 60 calendar days provided, however, that the crushers do not process materials containing asbestos. This exemption includes associated screens and drop points; tub grinders used to mulch grubbing waste; and internal combustion engines meeting the criteria for plan approval exemption described in Category 6 above.
13. Concrete batch plants and associated storage vessels that are equipped with fabric collectors designed using good engineering practices. Concentration of particulate matter emissions may not exceed 0.01 gr/dscf from the fabric collector stack.
14. Bulk material storage bins, except those associated with a production facility with total actual facility particulate emissions greater than 10 tpy.
15. Storage vessels for volatile organic compounds which have capacities less than 40 m³ (10,000 gallons) based on vessel dimensions, unless subject to § 129.57 (storage tanks less than or equal to 40,000 gallons capacity containing VOCs), § 129.59 (bulk gasoline terminals) or § 129.60(b) and (c) (bulk gasoline plants). HAP emissions may not exceed 1000 lbs/yr of a single HAP or one tpy of a combination of HAPs. The HAPs may not contain Polychlorinated Biphenyls (PCBs), Chromium (Cr), Mercury (Hg), Lead (Pb), Polycyclic Organic Matter (POM), Dioxins or Furans.
16. Storage vessels containing non-VOC, non-malodorous, or non-hazardous air pollutant materials.
17. Diesel fuel; Nos. 2, 4, and 6 fuel oils; or kerosene and jet fuel storage and dispensing facilities as long as the stored or dispensed product has a vapor pressure less than 1.5 psia.
18. Covered wastewater transfer systems such as covered junction boxes, sumps, and tanks at industrial sites.
19. Plastic bead or pellet milling, screening, and storage operations (does not include handling and storage of resin powders).
20. Plastic parts casting ovens and injection molding processes. HAP emissions may not exceed 1000 lbs/yr of a single HAP or one tpy of a combination of HAPs. The HAPs may not contain Polychlorinated Biphenyls (PCBs), Chromium (Cr), Mercury (Hg), Lead (Pb), Polycyclic Organic Matter (POM), Dioxins or Furans.
21. Tire buffing.
22. Paper trimmers/binders.
23. Vocational education shops. Chemistry laboratories at schools and colleges.
24. Bench-scale laboratory equipment used for kinetic studies, mass/energy transport studies, chemical synthesis and physical or chemical analysis.

25. Research and development activities as defined in 25 Pa. Code Chapter 121 with the following annual emission rates. See Category No. 45 which specifies emission rates where the owner or operator of a source or a facility needs to submit RFD.
- i. less than or equal to 10 tpy of CO;
 - ii. less than or equal to 1.5 tpy of non-HAP PM₁₀;
 - iii. less than or equal to 4 tpy of SO₂ or non-HAP VOC;
 - iv. less than or equal to 5 tpy of NO_x;
 - v. less than or equal to 1000 lbs/yr of a single HAP or one tpy of a combination of HAPs. The HAPs may not contain Polychlorinated Biphenyls (PCBs), Chromium (Cr), Mercury (Hg), Lead (Pb), Polycyclic Organic Matter (POM), Dioxins or Furans.
26. Woodworking facilities including sawmills and pallet mills which process green wood; or, small woodworking facilities processing kiln-dried wood or wood products (flakeboard, particleboard, etc.) associated with pattern shops, retail lumber yards, shipping and packing departments, etc. This category also includes woodworking facilities of any size processing kiln-dried wood or wood products equipped with fabric collectors designed to have emission rates that are less than 0.01 gr/dscf.
- This exemption does not apply to woodworking facilities processing wood that has been treated with a wood preservative of any kind. The term “woodworking facilities” refers only to operations in which wood or a wood product is sawed, sanded, planed, or similarly shaped or reshaped. The term does not include such activities as painting, finishing, hardboard manufacturing, plywood manufacturing, and the like.
27. Smokehouses.
28. Slaughterhouses (rendering cookers remain subject to the requirements of § 127.11).
29. Restaurant operations.
30. Degreasing operations at a facility emitting less than 2.7 tons of VOCs on a 12-month rolling basis and not subject to the Federal NESHAP for halogenated solvent cleaners under 40 CFR Part 63.
31. Sources of uncontrolled VOC emissions from a project that are less than 2.7 tons on a 12-month rolling basis. Uncontrolled HAPs emissions from a project may not exceed 1000 lbs of a single HAP or one ton of a combination of HAPs in any consecutive 12-month period. The HAPs may not contain Polychlorinated Biphenyls (PCBs), Chromium (Cr), Mercury (Hg), Lead (Pb), Polycyclic Organic Matter (POM), Dioxins or Furans. Facilities claiming this exemption must provide a 15-day prior written notification with calculations and supporting documents to DEP.
32. Dry-cleaning facilities that are not subject to NSPS, MACT, PSD or NSR requirements.
- 33.
- a. Retail gasoline dispensing facilities and similar vehicle-fueling operations at industrial facilities.

- b. Compressed natural gas dispensing facilities meeting the following requirements:
- i. Combined NO_x emissions from the stationary internal combustion engines at a facility less than 100 lbs/hr, 1000 lbs/day, 2.75 tons per ozone season (the period beginning May 1 of each year and ending on September 30 of the same year) and 6.6 tons per year on a 12-month rolling basis. The emissions criteria do not include emissions from sources which are approved by the Department in plan approvals, general plan approval/general operating permits or emissions from sources at the facility approved under Category No. 33a.
 - ii. Combined VOC emissions from all the sources at the facility less than 2.7 tons on a 12-month rolling basis. If the VOCs include HAPs, the HAP exemption criteria in this paragraph must be met. Compliance with this criterion will be determined using any generally accepted model or calculation methodology. Combined HAP emissions [not including Polychlorinated Biphenyls (PCBs), Chromium (Cr), Mercury (Hg), Lead (Pb), Polycyclic Organic Matter (POM), Dioxins and Furans] at the facility less than 1000 lbs. of a single HAP or one ton of a combination of HAPs in any consecutive 12-month period. The emissions criteria do not include emissions from sources which are approved by the Department in plan approvals, general plan approval/general operating permits, or emissions from sources approved under Category No. 33a. at the facility.
 - iii. The owner or operator of the compressed natural gas fueling station will annually perform a leak detection and repair (LDAR) program that includes either the use of an optical gas imaging camera such as a FLIR camera or a gas leak detector capable of reading methane concentrations in air of 0% to 5% with an accuracy of +/- 0.2% or other leak detection monitoring devices approved by the Department. The LDAR program will be conducted on valves, flanges, connectors, storage vessels/storage tanks, and compressor seals in natural gas or hydrocarbon liquids service. Leaks are to be repaired no later than 15 days after leak detections unless facility shutdowns or ordering of replacement parts are necessary for repair of the leaks. For the storage vessel, any leak detection and repair are to be performed in accordance with 40 CFR Part 60, Subpart OOOO.
 - A. A leak is considered repaired if one of the following can be demonstrated:
 1. No detectable emissions consistent with Method 21 specified in 40 CFR Part 60, Appendix A;
 2. A concentration of 2.5% methane or less using a gas leak detector;
 3. No visible leak image when using an optical gas imaging camera;
 4. No bubbling at leak interface using a soap solution bubble test specified in Method 21. A procedure based on the formation of bubbles in a soap solution that is sprayed on a potential leak source may be used for those sources that do not have continuously moving parts and that do not have a surface temperature greater

than the boiling point or less than the freezing point of the soap solution; or

5. Any other method approved by the Department.

B. Leaks, repair methods, and repair delays are to be recorded and those records should be maintained for five years. If a gas leak detector is used, a leak is to be detected by placing the probe inlet at the surface of a component. The Department may grant an extension for leak detection deadlines or repairs upon written request from the owner or operator of the facility documenting the justification for the requested extension.

34. Sources of particulate matter (not subject to NESHAPs, NSPS, PSD, or major source requirements) that are controlled by a baghouse, have an emission rate which meets the limits of Chapter 123, and are exhausted indoors and cannot be bypassed to exhaust to the outdoor atmosphere. These sources should not emit more than 1000 lbs/yr of a single HAP or one tpy of a combination of HAPs. The HAPs may not contain Polychlorinated Biphenyls (PCBs), Chromium (Cr), Mercury (Hg), Lead (Pb), Polycyclic Organic Matter (POM), Dioxins or Furans. Multiple sources within this category may be exempt from plan approval requirements.
35. Sources emitting only inert gases [such as argon (Ar), helium (He), krypton (Kr), neon (Ne), and xenon (Xe)], nitrogen (N₂), oxygen (O₂), carbon dioxide (CO₂), or ethane (C₂H₆).
36. Source(s) qualifying under § 127.449 as de minimis emission increases.
37. Reserved. See Category 46.
- 38(a). Existing oil and gas exploration, development, and production facilities and associated equipment and operations constructed prior to August 10, 2013. Any modification of an existing source or construction of a new source after August 8, 2018, is subject to 38(c).
- 38(b). Existing oil and gas exploration, development, and production facilities and associated equipment and operations authorized to operate under exemption criteria dated August 10, 2013, but prior to August 8, 2018, of this exemption criteria that meet any of the following provisions (a – d). This exemption criteria also apply to a well that was spudded (drilled) on or after August 10, 2013, but before August 8, 2018, and an air contamination source that was constructed, reconstructed or modified on or after August 10, 2013, but before August 8, 2018:
- a. Site preparation, well drilling, hydraulic fracturing, completion, and work-over activities for conventional and unconventional well sites.
 - b. Conventional wells, wellheads, and all other associated equipment. A conventional well is any well that does not meet the definition of unconventional gas well in 58 PA.C.S § 3203.
 - c. Non-road engines as defined in 40 CFR § 89.2.

- d. Unconventional wells, wellheads, and associated equipment provided the applicable exemption criteria specified in subparagraphs i, ii, iii, iv, and v are met.
- i. Within 60 days after the well is put into production, and annually thereafter, the owner/operator will perform a leak detection and repair (LDAR) program that includes either the use of an optical gas imaging camera, Method 21 of 40 CFR Part 60, or other leak detection monitoring devices approved by the Department. LDAR is to be conducted on valves, flanges, connectors, storage vessels/storage tanks, and compressor seals in natural gas or hydrocarbon liquids service. Leaks are to be repaired no later than 15 days after leak detections unless facility shutdowns or ordering of replacement parts are necessary for repair of the leaks. The optical gas imaging camera, Method 21, or other Department-approved gas leak detection equipment is to be operated in accordance with manufacturer-recommended procedures. For the storage vessel, any leak detection and repair will be performed in accordance with 40 CFR Part 60, Subpart OOOO.
- A. A leak is considered repaired if one of the following can be demonstrated:
1. No detectable emissions consistent with Method 21 specified in 40 CFR Part 60, Appendix A;
 2. A concentration of 2.5% methane or less using a gas leak detector and a VOC concentration of 500 ppm or less;
 3. No visible leak image when using an optical gas imaging camera;
 4. No bubbling at leak interface using a soap solution bubble test specified in Method 21; or a procedure based on the formation of bubbles in a soap solution that is sprayed on a potential leak source may be used for those sources that do not have continuously moving parts and that do not have a surface temperature greater than the boiling point or less than the freezing point of the soap solution; or
 5. Any other method approved by the Department.
- B. Leaks, repair methods and repair delays will be recorded and those records should be maintained for five years. If a gas leak detector is used, a leak is to be detected by placing the probe inlet at the surface of a component. The Department may grant an extension for leak detection deadlines or repairs upon the receipt of a written request from the owner or operator of the facility documenting the justification for the requested extension.
- ii. Storage vessels/storage tanks or other equipment equipped with VOC emission controls achieving emissions reduction of 95% or greater. Compliance will be demonstrated consistent with 40 CFR Part 60, Subpart OOOO, as applicable, or an alternative test method approved by the Department.

- iii. Combined VOC emissions from all the sources at the facility less than 2.7 tons on a 12-month rolling basis. If the VOCs include HAPs, the HAP exemption criterion in this paragraph will be met. Compliance with this criterion is to be determined using any generally accepted model or calculation methodology. Combined HAP emissions [not including Polychlorinated Biphenyls (PCBs), Chromium (Cr), Mercury (Hg), Lead (Pb), Polycyclic Organic Matter (POM), Dioxins and Furans] at the facility less than 1000 lbs of a single HAP or one ton of a combination of HAPs in any consecutive 12-month period. The emission criteria do not include emissions from sources which are approved by the Department in plan approvals or general plan approvals/general operating permits at the facility and the emissions from sources meeting the exemption criteria in subparagraphs i, ii, and iv.
- iv. Flaring activities as outlined below:
 - A. Flaring used at exploration wells to determine whether oil and/or gas exists in geological formations or to appraise the physical extent, reserves and likely production rate of an oil or gas field.
 - B. Flaring used for repair, maintenance, emergency, or safety purposes.
 - C. Flaring used for other operations at a wellhead or facility to comply with 40 CFR Part 60, Subpart OOOO requirements as applicable.
 - D. Enclosed combustion device including enclosed flare will be used for all permanent flaring operations at a wellhead or facility. These flaring operations will be designed and operated in accordance with the requirements of 40 CFR § 60.18.
- v. Combined NO_x emissions from the stationary internal combustion engines at wells, and wellheads less than 100 lbs./hr., 1000 lbs./day, 2.75 tons per ozone season (the period beginning May 1 of each year and ending on September 30 the same year), and 6.6 tons per year on a 12-month rolling basis. The emission criteria do not include emissions from sources which are approved by plan approvals or the general plan approvals/general operating permits at the facility.

The owner or operator will comply with all applicable state and federal requirements including notification, recordkeeping, and reporting requirements as specified in 40 CFR Part 60 Subpart OOOO as applicable. The owner or operator will also demonstrate compliance with the exemption criteria to the Department using any generally accepted model or calculation methodology within 180 days after the well completion or installation of a source.

The owners and operators of sources not meeting the provisions of subsections a.- d. of this category may submit an RFD to the Department. If the RFD is not approved by the Department, an application for authorization to use a general permit or a plan approval application is to be submitted to the Department, as appropriate.

If drilling a new well or hydraulically refracturing an existing well, or adding new, reconstructed or modified equipment to an existing facility previously exempt under Category 38(a) or 38(b),

the owner or operator can meet the exemption criteria under 38(c); submit and obtain approval for an RFD; or apply for, and receive, authorization to use GP-5A.

If the source does not meet the exemption criteria under 38(c), an authorization cannot be granted under GP-5A and an RFD is not approved by the Department, a plan approval and/or an operating permit issued in accordance with 25 Pa. Code, Chapter 127, Subchapter B (relating to plan approval requirements) and/or Subchapter F (relating to operating permit requirements) will be required, as appropriate.

38(c). Oil and gas exploration, development, and production facilities and associated equipment and operations for which construction or reconstruction commenced on or after August 8, 2018, of this Exemption criteria meeting the following provisions **or** drilling (spudding) a new well; hydraulically refracturing an existing well; or adding new, reconstructed, or modified equipment to an existing facility previously exempted from plan approval and operating permit, meeting the following provisions:

- a. Conventional wells, wellheads, and all other associated equipment. A conventional well is any well that does not meet the definition of unconventional gas well in 58 PA.C.S. § 3203.
- b. Site preparation, well drilling, hydraulic fracturing, completion, work-over activities, and associated temporary flaring operations for conventional and unconventional well sites.
- c. Unconventional natural gas well site operations or remote pigging stations, provided they meet the following criteria:
 - i. The owner or operator must comply with the following leak detection and repair (LDAR) program.

Within 60 days after the well is put into production, and semi-annually thereafter, the owner/operator will perform LDAR that includes the use of an optical gas imaging camera calibrated according to 40 CFR § 60.18 and a detection sensitivity level of 60 grams/hour, Method 21 of 40 CFR Part 60, or other leak detection monitoring devices approved by the Department. LDAR is to be conducted on valves, flanges, connectors, storage vessels/storage tanks, and compressor seals in natural gas or hydrocarbon liquids service. Leaks are to be repaired no later than 15 days after leak detections unless facility shutdowns or ordering of replacement parts are necessary for repair of the leaks. The optical gas imaging camera, Method 21, or other Department-approved gas leak detection equipment is to be operated in accordance with manufacturer-recommended procedures. For the storage vessel, any leak detection and repair will be performed in accordance with 40 CFR Part 60, Subpart OOOO or Subpart OOOOa, as applicable.

- A. A leak is considered repaired if one of the following can be demonstrated:
 1. No detectable emissions consistent with Method 21 specified in 40 CFR Part 60, Appendix A;

2. A leak of less than 500 ppm calibrated as methane is detected when the gas leak detector probe inlet is placed at the surface of the component;
 3. No visible leak image when using an optical gas imaging camera;
 4. No bubbling at leak interface using a soap solution bubble test specified in Method 21; or a procedure based on the formation of bubbles in a soap solution that is sprayed on a potential leak source may be used for those sources that do not have continuously moving parts and that do not have a surface temperature greater than the boiling point or less than the freezing point of the soap solution; or
 5. Any other method approved by the Department.
- B. Leaks, repair methods and repair delays will be recorded and maintained for five years. If a gas leak detector is used, a leak is to be detected by placing the probe inlet at the surface of a component. The Department may grant an extension for leak detection deadlines or repairs upon the receipt of a written request from the owner or operator of the facility documenting the justification for the requested extension.
- ii. Combined VOC emissions from all sources including tanker truck loadouts at the facility less than 2.7 tons on a 12-month rolling basis. If the VOCs include HAPs, the HAP exemption criterion in this paragraph will be met. Compliance with this criterion is to be determined using any generally accepted model or calculation methodology. Combined HAP emissions [not including Polychlorinated Biphenyls (PCBs), Chromium (Cr), Mercury (Hg), Lead (Pb), Polycyclic Organic Matter (POM), Dioxins and Furans] at the facility less than 1000 lbs of a single HAP or one ton of a combination of HAPs in any consecutive 12-month period. The emission criteria do not include emissions from sources which are approved by the Department in plan approvals or general plan approvals/general operating permits at the facility.
 - iii. Methane emissions from each individual source at the facility less than 200 tpy.
 - iv. Non-road engines as defined in 40 CFR § 89.2.
 - v. Internal combustion engines regardless of size, with combined NO_x emissions less than 100 lbs/hr, 1000 lbs/day, 2.75 tons per ozone season and 6.6 tons per year on a 12-month rolling basis for all exempt engines at the site. The emission criteria do not include emissions from sources which are approved by the Department in plan approvals or the general plan approvals/general operating permits at the facility. For control of NO_x emissions with a technology that uses ammonia or urea as a reagent, the exhaust ammonia slip is limited to 10 ppmvd or less corrected to 15% O₂.

- vi. The owner or operator that conducts pigging operations shall employ best management practices to minimize the liquids present in the pig receiver chamber and to minimize emissions from the pig receiver chamber including, but not limited to, installing liquids ramps, installing liquids drains, routing high-pressure chambers to a low-pressure line or vessel, using ball valve type chambers, or using multiple pig chambers. The selection of the appropriate best management practices must be documented.

The owners and operators of sources not meeting the provisions of subsections a.- c. of this category may submit an RFD form to the Department. If the RFD is not approved by the Department, an application for authorization to use a general permit or a plan approval application is to be submitted to the Department, as appropriate.

The owner or operator will also comply with all applicable state and federal requirements including notification, recordkeeping, and reporting requirements as specified in 40 CFR Part 60 Subpart OOOO or Subpart OOOOa, as applicable.

The owner or operator shall keep adequate records for five years, including but not limited to, a representative fractional analysis of the gas processed by the facility to demonstrate compliance with the exemption criteria using any generally accepted model or calculation methodology.

- 39. Combustion units with a rated capacity of less than 10 million Btus per hour of heat input fueled by LPG/Propane or pipeline quality natural gas.
- 40. Any source qualifying for exemption based on criteria contained in a general permit developed in accordance with the procedures described in §§ 127.601 through 127.642.
- 41. Reserved. See Category No. 47.
- 42. Facilities engaged primarily in collision repair and refinishing of automobiles and light-duty trucks.
- 43. Reserved. See Category No 48.
- 44. Any source granted an exemption by the Department through the execution of an RFD form.

Section 127.14(a)(8) exemptions that require the submission of an RFD form.

The following is a list of sources where the owner or operator of a source or a facility seeking an exemption must submit an RFD form. The Department may use the criteria specified in the category for review of the RFD form.

- 45. Research and development activities as defined in 25 Pa. Code Chapter 121 with annual emission rates:
 - i. CO emissions greater than 10 tpy but less than or equal to 20 tpy
 - ii. Non-HAP PM₁₀ emissions greater than 1.5 tpy but less than or equal to 3 tpy
 - iii. SO₂ or non-HAP VOC emissions greater than 4 tpy but less than or equal to 8 tpy
 - iv. NO_x emissions greater than 5 tpy but less than or equal to 10 tpy

- v. Single HAP emissions greater than 1000 lb/yr but less than or equal to 1 tpy or Combined HAP emissions greater than one tpy but less than or equal to 2.5 tpy. The HAPs may not contain Polychlorinated Biphenyls (PCBs), Chromium (Cr), Mercury (Hg), Lead (Pb), Polycyclic Organic Matter (POM), Dioxins or Furans.

46. Sources that exhaust to a filter/baghouse and have particulate loading (before control) below limits specified in Chapter 123.

47. Powdered metal sintering furnaces using only organic lubricants equal to or less than 0.75% organic lubricant by weight. The furnace atmosphere must contain hydrogen (H₂) at 3% volume or greater. The furnace must also maintain an operating flame curtain between the part entry and pre-heat zone. In the absence of an operating flame curtain, the furnace must operate an afterburner.

A sintering furnace using only metal containing lubricants may be exempted if the furnace emits particulate matter not exceeding 0.15 lb. /hr. (determined by mass balance or stack tests). Note: for mass balance purposes, the following conversion factors are to be used:

Zinc Stearate to Zinc Oxide particulate matter = 0.129,
Lithium Stearate to Lithium Carbonate particulate matter = 0.15.

The Department may approve alternate conversion factors provided a satisfactory written justification is submitted to the Department.

The owner/operator of a sintering furnace exempt from permitting requirements must notify the Department within 30 days of the furnace installation. For sintering furnaces using metal containing lubricants, records must be maintained to demonstrate compliance with the particulate matter emission limit of 0.15 lb/hour for each product.

Facilities that use both organic and/or metal-containing lubricants are exempted if the lubricants are less than 0.75% organic lubricant by weight; and, the furnace is designed and operated as described in the preceding paragraph and emits particulate matter at rates less than 0.15 lb./hr (determined by mass balance or stack tests).

48. Remediation of gasoline or fuel oil contaminated soil, groundwater or surface water by equipment installed, maintained, and operated as provided herein. All air exhaust points are controlled by dual, activated carbon beds operating in series or a thermal/catalytic oxidizer. For activated carbon beds, monitoring (e.g. intrinsically safe ionization detector) at an appropriate frequency (e.g., one-fourth the predicted time to breakthrough of the first bed) must be performed at the inlet, between the first and second beds and after the second bed. If breakthrough of the first bed is detected, the first bed is removed, the second bed is shifted to the first position and the new bed is placed in the second position. Monitoring, operating, and maintenance records are maintained and available to the Department upon request. Equipment installed and operated as described above must be designed to achieve a minimum VOC control efficiency of 90% and shall emit actual annual emissions after control less than one tpy of VOC or HAPs.

49. Bulk material storage bins (not subject to NESHAPs, NSPS, PSD, NSR, or major source requirements) that are equipped with fabric collectors designed to have particulate matter emission rates that are less than 0.01 gr/dscf.

Physical Changes Qualifying for Exemption Under Section 127.14(a)(9)

In accordance with § 127.14(a)(9), the Department has determined that the following physical changes qualify for plan approval exemption if the change: a) would not violate the terms of an operating permit, the Air Pollution Control Act, the Clean Air Act or the regulations adopted under the acts; b) would not result in emission increases above the allowable limit in the operating permit; and c) would not result in an increased ambient air quality impact for an air contaminant. These changes may be made without notification or submission of an RFD to the Department.

Caution: Do not make determinations regarding the following list without consideration of the preceding criteria.

1. Changes in the supplier or formulation of similar raw materials, fuels, paints, and other coatings which do not affect emissions, and which meet all applicable standards and limitations.
2. Changes in product formulations that do not affect air emissions.
3. Changes that result in different speciation of pollutants but fall within permit limitations.
4. Changes in the method of raw material addition.
5. Changes in the method of product packaging.
6. Changes in temperature, pressure, or other operating parameters that do not adversely affect air cleaning device performance or air emissions.
7. Additions of or changes to sampling connections used exclusively to withdraw materials for testing and analysis including air contaminant detection and vent lines.
8. Changes to paint drying oven length designed to alter curing time, so long as capture efficiencies of control equipment are not altered.
9. Routine maintenance, inspection, and cleaning of storage tanks and process vessels or the closure or dismantling of a storage tank or process.
10. Changing water sources to air cleaning devices when there is no effect on air cleaning device performance or air emissions.
11. Moving a source from one location to another at the same facility with no change in operation or controls.
12. Installation of an air-cleaning device when there is no obligation to install an air-cleaning device under any applicable requirement and will not be used to generate emission reduction credits. Owners and operators claiming this exemption must provide a 30-day prior written notification to DEP. This exemption does not apply to the installation of catalytic or reagent-based

reduction, thermal oxidation (including open flares), catalytic oxidation, scrubbing for SO₂ or acid gas control, electrostatic precipitation, or any air-cleaning devices that increases air contaminant emissions.

13. Repairing, replacing, upgrading, maintaining, or installing pollution control device instrumentation or component equipment including pumps, blowers, burners, filters, filter bags, devices for measuring pressure drop across an air cleaning device or a filter breakage detector for a baghouse, provided such changes would not violate an operating permit term or condition.
14. Installing a fume hood or vent system for industrial hygiene purposes or in a laboratory.
15. The temporary (no longer than six months) replacement of a source with a source of equal or less emission potential.
16. Turbine core replacement is allowed for a turbine, provided the following conditions are met:
 - a) The owner or operator shall provide thirty (30) days written notification to the Department of a planned turbine core replacement, or within seven (7) days after an unplanned replacement is commenced. The turbine core consists of the compressor, combustor, and power sections together.
 - b) The written notice shall identify the location, the manufacturer, model, and serial number of the turbine, and the manufacturer, model, and serial number of the turbine core to be installed, or which has been installed, in the turbine and the air contaminant emission rates which will exist following the turbine core replacement, including NO_x, CO and NMNEHC.
 - c) The written notice shall also contain a certification from the owner or operator that any turbine core to be installed will be a lower emitting turbine core or, if the core will be replaced with an identical core, that a lower emitting core is not available. The notice shall indicate whether the turbine core has been manufactured by either the existing turbine manufacturer or other manufacturer. Existing turbine manufacturers shall include companies that maintain the turbine cores of the existing turbines at the facility. If the permittee decides to install a turbine core obtained from a manufacturer other than the existing turbine manufacturer, the notice shall contain a certification, signed by a "responsible official" as defined in 25 Pa. Code Section § 121.1, that the permittee has examined the turbine cores that are available from all such manufacturers and will install, or has installed, the lowest emitting turbine core available from any manufacturer.
 - d) The core to be installed, or which has been installed, shall be an identical turbine core or lower emitting turbine core.
 - e) The notice shall be accompanied by a vendor-provided guarantee of the achievable air contaminant emission rates of the new turbine core. If such a guarantee is not available, the notice shall include certification that the permittee attempted to obtain such guarantee and an explanation as to why the vendor will not provide such a guarantee.
 - f) All certifications shall be signed by a responsible official and shall acknowledge that the certifying party is aware of the penalties for unsworn falsification to governmental

authorities as established under 18 Pa.C.S. § 4904. The certification shall also state that based on information and belief formed after reasonable inquiry, that the information in the notice is true, accurate and complete.

- g) A turbine core is a “Lower Emitting Turbine Core” if it is commercially available, has the same operating characteristics as the core being removed and the rate of NO_x emissions, expressed as either parts per million by volume dry basis (“ppmvd”) or pounds per hour (“lb/h”) would be lower than the rates of emission achievable by any commercially available alternative turbine core when the respective turbine was operating at the same level of performance. If the horsepower, firing rate, and operating speed of the core being removed falls within the ranges of horsepower, firing rate, and operating speed for the Lower Emitting Turbine Core, the Lower Emitting Turbine Core is considered to have the same operating characteristics as the core being removed. A turbine core is an “Identical Turbine Core” if the rate of NO_x emissions is no higher than the emission rates of the turbine core being replaced when the respective turbine is operating at the same level of performance.
- h) After a turbine core has been replaced, the permittee shall perform NO_x, CO, and NMNEHC emissions testing for the respective turbine compressor engine(s) within one-hundred twenty (120) days of completing the replacement if no emissions testing is required by the operating permit. Stack testing shall be performed in accordance 25 Pa. Code Title 25, Chapter 139.
- i) The fixed capital cost of turbine core replacement shall not exceed 50% of the fixed capital cost that would be required to construct a comparable entirely new source; fixed capital cost means the capital needed to provide the depreciable components.

In accordance with § 127.14(c), additional physical changes may be determined to be of minor significance and not subject to plan approval requirements through the following procedure:

1. If the changes do not involve the installation of equipment, the changes may be made within 7 calendar days of the Department’s receipt of a written request provided the Department does not request additional information or objects to the change within the 7-day period.
2. If the changes involve the installation of equipment, the changes may be made within 15 calendar days of the Department’s receipt of a written request provided the Department does not request additional information or objects to the change within the 15-day period.
3. If the change would violate the terms of an operating permit, the plan approval exemption may be processed contemporaneously with the minor operating permit modification under the procedures described in § 127.462.

Exemption Criteria for Operating Permits

A Title V operating permit is needed by all facilities that have the potential to emit (PTE) exceeding the levels described in the definition of “Title V facility.” A state-only operating permit is needed for facilities that do not have a PTE which exceeds the Title V facility thresholds, but which has actual emissions equal to or exceeding the facility levels summarized below. An existing facility which does not have a PTE exceeding the Title V facility thresholds

and which does not have actual emissions exceeding the levels shown below is exempt from the requirement to obtain an operating permit. The exemption criteria for operating permits are not applicable to facilities which have sources that require plan approvals or should have required plan approvals. The Department may exempt a facility from operating permit requirements on a case-by-case basis as appropriate.

State-Only Operating Permit Facility Exemptions*

Pollutant	PTE<	Actual Emission <
CO	100 TPY	20 TPY
NO _x	100 TPY**	10 TPY
SO _x	100 TPY	8 TPY
PM ₁₀	100 TPY	3 TPY
VOCs	50 TPY**	8 TPY
Single HAP	10 TPY	1 TPY
Multiple HAPs	25 TPY	2.5 TPY

* Sources located in Allegheny and Philadelphia Counties may be subject to different permitting requirements. Please contact the Allegheny County Air Quality Program or the Philadelphia Air Management Services for information applicable to sources located in those counties.

** 25 tpy for Bucks, Chester, Delaware, and Montgomery Counties.

Consistent with the list and criteria established in this guidance document, sources that are exempt from plan approval should be included in a facility-wide operating permit application unless that source is also included in the listing of trivial activities as set forth below.

When an RFD is issued for a source not included on the list of trivial activities, the source need not be brought into the facility-wide operating permit until the renewal of the operating permit; provided that all applicable requirements are met and there is no need to revise the facility-wide operating permit prior to renewal. In the case where physical changes of minor significance would violate the terms of a facility-wide operating permit, a plan approval exemption and a permit modification should be processed contemporaneously. All air contamination sources and air pollution control devices must be operated in a manner consistent with the manufacturer's specifications and good engineering practice.

Exempted Facility and Source Categories for Operating Permits

Unless precluded by the CAA or the regulations thereunder, the following facilities and source categories are exempted from the operating permit requirements of § 127.402.

1. Residential wood stoves.
2. Asbestos demolition/renovation activities.
3. Facilities engaged primarily in collision repair and refinishing of automobiles and light-duty trucks.

4. Retail gasoline stations.

Trivial Activities

For trivial activities, owners and operators are not required to submit notifications, RFD forms, or Plan Approval applications. In addition, these activities do not need to be described in a Title V or state-only operating permit application. Trivial activities are those located within a facility which do not create air pollution in significant amounts. By way of comparison, sources listed in the plan approval exemption list may require a notification or RFD to be submitted, and should be included in an operating permit application.

1. Combustion emissions from propulsion of mobile air contamination sources. The term “mobile air contamination source” means an air contamination source, including, but not limited to, automobiles, trucks, tractors, buses, and other motor vehicles; railroad locomotives; ships, boats, and other waterborne craft. The term does not include a source mounted on a vehicle, whether the mounting is permanent or temporary, that is not used to supply power to the vehicle. Examples might include lawn mowers, tow, and lift vehicles, and the like.
2. Air-conditioning units used for human comfort that do not have applicable requirements under Title VI of the CAA.
3. Ventilating units used for human comfort that do not exhaust air pollutants into the ambient air from any manufacturing, industrial, or commercial process.
4. Electric space heaters. Propane and gas-fired space heaters with a plant-wide capacity less than 2.5 million Btus per hour heat input and which have not been subject to RACT requirements.
5. Electrically heated furnaces, ovens and heaters, and other electrically operated equipment from which no emissions of air contaminants occur.
6. Non-commercial food preparation.
7. Use of office equipment and products, not including printers or businesses primarily involved in photographic reproduction.
8. Any equipment, machine, or device from which emission of an air contaminant does not occur.
9. Janitorial services and consumer use of janitorial products.
10. Internal combustion engines used for landscaping purposes.
11. Garbage compactors and waste barrels.
12. Laundry activities, except for dry-cleaning and steam boilers.
13. Bathroom/toilet vent emissions.
14. Emergency (backup) electrical generators at residential locations.

15. Tobacco smoking rooms and areas.
16. Blacksmith forges.
17. Plant maintenance and upkeep activities (such as grounds-keeping, general repairs, cleaning, painting, welding, plumbing, re-tarring roofs, installing insulation, and paving parking lots) provided these activities are not conducted as part of a manufacturing process, not related to the source's primary business activity, and not otherwise triggering a permit modification.ⁱ
18. Repair or maintenance shop activities not related to the source's primary business activity, not including emissions from surface coating or de-greasing (solvent metal cleaning) activities, and not otherwise triggering a permit modification.
19. Reserved.
20. Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning, or machining wood, metal, or plastic.
21. Brazing, soldering, and welding equipment, and cutting torches related to maintenance and construction activities that do not result in emission of HAP metals.ⁱⁱ
22. Air compressors and air-driven pneumatically operated equipment, including hand tools.
23. Batteries and battery charging stations, except at battery manufacturing plants.
24. Storage tanks, vessels, and containers holding or storing liquid substances that will not emit any VOC or HAP.
25. Propane or natural gas tanks and containers.
26. Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized.
27. Equipment used to mix and package soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized.
28. Drop hammers or hydraulic presses for forging or metalworking.
29. Equipment used exclusively to slaughter animals, but not including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment.
30. Vents from continuous emissions monitors and other analyzers.
31. Reserved.
32. Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation.

33. Equipment used for surface coating, painting, dipping or spraying operations, except those that will emit PM, VOC, or HAP.
34. CO₂ lasers used only on metals and other materials that do not emit HAP in the process.
35. Consumer use of paper trimmers/binders.
36. Electric or steam-heated drying ovens and autoclaves, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam.
37. Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants.
38. Laser trimmers using dust collection to prevent fugitive emissions.
39. Reserved.
40. Sources emitting only inert gases [such as argon (Ar), helium (He), krypton (Kr), neon (Ne), and xenon (Xe)], nitrogen (N₂), oxygen (O₂), carbon dioxide (CO₂), or ethane (C₂H₆).
41. Routine calibration and maintenance of laboratory equipment or other analytical instruments.
42. Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.
43. Hydraulic and hydrostatic testing equipment.
44. Environmental chambers not using HAP gases.
45. Shock chambers.
46. Humidity chambers.
47. Solar simulators.
48. Fugitive emissions related to movement of passenger vehicles, provided the emissions are not counted for applicability purposes and any required fugitive dust control plan or its equivalent is submitted.
49. Process water filtration systems and demineralizers, but not including air strippers.
50. Demineralized water tanks and demineralizer vents.
51. Boiler water treatment operations, not including cooling towers.
52. Oxygen scavenging (de-aeration) of water.
53. Potable water treatment systems.

- 54. Ozone generators.
- 55. Fire suppression systems and activities involved in fire protection training, first aid or emergency medical training.
- 56. Emergency road flares.
- 57. Steam vents and safety relief valves.
- 58. Steam leaks.
- 59. Steam cleaning operations.
- 60. Steam sterilizers.
- 61. Reserved.
- 62. Typesetting, image-setting, and plate-making equipment used in the preparatory phase of printing.

If an applicant conducts an activity that is believed trivial but not covered by this listing, the applicant may list the activity in an operating permit application and provide a written justification for listing the activity as trivial. If the Department accepts the applicant's justification, no further information will be required on the activity. If the Department rejects the justification, additional information must be included in an operating permit application submitted to the Department.

ⁱ Cleaning and painting activities qualify if they are not subject to VOC or HAP control requirements. Asphalt batch plant owners/operators must still get a permit.

ⁱⁱ Brazing, soldering, and welding equipment, and cutting torches related to manufacturing and construction activities that emit HAP metals are more appropriate for treatment as insignificant activities based on size or production level thresholds. Brazing, soldering, welding, and cutting torches directly related to plant maintenance and upkeep and repair or maintenance shop activities that emit HAP metals are treated as trivial and listed separately in this appendix.

**STATE OF NEW MEXICO
BEFORE THE ENVIRONMENTAL IMPROVEMENT BOARD**

IN THE MATTER OF:

PROPOSED NEW REGULATION

No. EIB 21-27 (R)

20.2.50 Oil and Gas Sector — Ozone Precursor Pollutants

**PRE-FILED REBUTTAL TESTIMONY OF MR. MARK COPELAND,
A WITNESS ON BEHALF OF THE GAS COMPRESSOR ASSOCIATION**

1 My name is Mark Copeland. I am the Director, Field Operations Support and Service for
2 the Archrock family of companies. I previously filed direct testimony on behalf of the Gas
3 Compressor Association (“GCA”), which is labeled GCA Exhibit 15 and my resume has been
4 previously provided as GCA Exhibit 16.

5 I offer this rebuttal testimony in response to the WildEarth Guardians’ requested new
6 reporting (“New Reporting Requirement”), which would go beyond the New Mexico Environment
7 Department’s (“NMED”) proposed rule by requiring all owners/operators to submit records of all
8 monitoring events documenting deviations from NMED’s Proposed Rule (“Proposed Rule”) on a
9 semiannual basis. The New Reporting Requirement would be in addition to the compliance
10 demonstration and recordkeeping requirements already included by NMED in the Proposed Rule.
11 See WildEarth Guardians’ “Notice of Intent to Present Technical Testimony and Pre-Hearing
12 Statement” (“WildEarth’s NOI”), p. 6, “Proposed Redline Modifications to NMED’s Proposed
13 20.2.50 NMAC,” pages 1 and 2 (proposing new Section 20.2.50.112.D(1)) (“WildEarth’s
14 Proposed Redline”) and WildEarth Guardians’ Exhibit 3, “Direct Technical Testimony of Jeremy
15 Nichols” (“Nichols Testimony”).

16 In my rebuttal testimony, I explain why, in my professional opinion, NMED and the
17 Environmental Improvement Board (“EIB”) should not add the New Reporting Requirement to

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the Proposed Rule. As set forth herein, NMED and EIB should reject this proposal for a variety of reasons, including:

- the Proposed Rule already includes significant and sufficient compliance demonstration requirements;
- the New Reporting Requirement would impose unjustified additional burdens and costs on both NMED and the regulated community;
- there is no evidence of how those additional burdens and costs will result in a benefit to NMED enforcement or provide environmental improvement;
- the New Reporting Requirement would be an unjustifiable imposition of EPA Title V-like deviation reporting for major sources onto non-major sources; and
- the unprecedented nature of the New Reporting Requirement as proposed.

I. The Proposed Rule Already Contains Significant and Sufficient Compliance Demonstration Requirements

The Proposed Rule already contains significant compliance demonstration requirements deemed sufficient and acceptable to NMED, including extensive testing, monitoring, inspection and recordkeeping requirements. As proposed, each source category subject to regulation under the Proposed Rule establishes inspection, testing, and monitoring requirements for that source category. For example, the owners or operators of engines subject to the rule must comply with the extensive testing and monitoring requirements established in Proposed 20.2.50.113.C NMAC, and keep detailed electronic records of those compliance demonstration activities under Proposed 20.2.50.113.D NMAC. The Proposed Rule would regulate other source categories, such as heaters or storage vessels, in a similar manner, with significant compliance demonstration and recordkeeping requirements tailored to each source category. *See, e.g.*, Proposed 20.2.50.119.C

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41 & D (compliance demonstration and associated recordkeeping for heaters); Proposed
42 20.2.50.123.C & D (compliance demonstration and associated recordkeeping for storage vessels).

43 Each source category regulated under the Proposed Rule also contains a proposed reporting
44 requirement, which cross-references and requires compliance with reporting requirement in the
45 General Provisions of the Proposed Rule. *See, e.g.,* Proposed 20.2.50.113.E (reporting
46 requirement for engines). The General Provisions of the Proposed Rule requires the owner or
47 operator to promptly report any of the required compliance demonstration information upon
48 request by the NMED. Proposed 20.2.50.112.D. (Note that, as proposed, Section 112.D would
49 require the report to be submitted within 24 hours of the request. In my pre-filed direct testimony
50 in this matter, I commented that the NMED should change this reporting deadline to three (3)
51 business days, which would ensure prompt reporting of information but also eliminate the extreme
52 challenges, if not impossibility, that would face the regulated community after receipt of such a
53 request in certain circumstances.)

54 Mr. Nichols' assertion that "NMED's proposed regulations do not require any reporting of
55 monitoring or compliance data," *see* WildEarth Guardians Ex. 3, at p.6, is simply incorrect. The
56 reporting requirements of the Proposed Rule are comprehensive, and already ensure that the
57 NMED will be in prompt receipt of all the compliance demonstration records that must be
58 maintained under the Proposed Rule.

59 **II. The Requested New Reporting Requirement Creates Unnecessary Additional**
60 **Burdens and Costs for NMED and the Regulated Community Without**
61 **Evidence of Any Benefits**

62 The Nichols Testimony acknowledges that "owners or operators would be required to
63 report excess emissions consistent with the Proposed Rule at 20.2.7 NMAC," *see* WildEarth

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Guardians Ex. 3, at p. 6, but ignores the added burden and costs the New Reporting Requirement would impose on both NMED and the regulated community.

The requested New Reporting Requirement would require additional effort on the part of the regulated community to package and transmit the subject deviation data and, similarly, would require additional effort on the part of NMED to receive, review and store the data. I believe there is no justification for inundating NMED with unsolicited information and documentation when it can obtain the same upon request and pursue enforcement against violators of the Proposed Rule as a result.

These additional burdens also have a cost. The New Reporting Requirement would either detour staff away from other, arguably higher value, operational and/or compliance obligations or would result in a need for additional personnel. WildEarth Guardians acknowledges that its proposed form of added compliance reporting “may pose logistical and data management challenges for NMED,” but, without attribution or explanation, implies that the mere “reporting of deviations” is an acceptable logistical and data management burden, pointing to Title V of the Clean Air Act. There is a reason why this Title V-type of reporting requirement has not been extended to the universe of minor sources that would be subject to deviation reporting under WildEarth Guardians’ request.

The costs and burdens that would be imposed by the New Reporting Requirement are layered on top of what has already been proposed by NMED, which I expect will result in significant costs to meet both the substantive and administrative elements of the Proposed Rule.

WildEarth Guardians requests the New Reporting Requirement without providing any evidence that it would improve enforcement, improve environmental protection or dissuade any non-compliant bad actors. Instead, the Nichols Testimony simply asserts there may be value of

87 this information to the public, presumably acting as a proxy for the professionals employed by
88 NMED—“enabling people to request and readily obtain and assess important data regarding
89 sources of air pollution that may be of concern or interest.” WildEarth Guardians Ex. 3, at p. 6.
90 NMED is the agency charged with enforcement of the requirements of the NMAC, and the
91 compliance demonstration and reporting requirements included in the Proposed Rule provide all
92 of the tools necessary to enforce these new regulatory requirements.

93 **III. The Requested New Reporting Requirement Unjustifiably Seeks to Impose**
94 **Title V “Major Source” Obligations on Minor Sources**

95 The Nichols Testimony asserts that WildEarth Guardian’s proposed New Reporting
96 Requirement is “consistent with reporting requirements under Title V of the Clean Air Act, which
97 require ‘prompt reporting’ of deviations from permit terms and conditions to regulatory
98 authorities.” WildEarth Guardians Ex. 3, at p. 6. That assertion is not entirely accurate given the
99 self-limited scope of Title V.

100 Title V of the Clean Air Act (“Title V”) is by definition legislation intended for “major
101 sources” of air pollutants (generally 100 tons/year in attainment areas) and hazardous air pollutants
102 (“HAP”) (10 tons/year for single HAP or 25 tons/year for any combination of HAPs) and, among
103 other things, requires the source to obtain a Major Source Permit that consolidates all of its
104 applicable air-quality related requirements and to submit the type of periodic self-reporting asked
105 of New Mexico’s regulated community by WildEarth Guardians.

106 The EPA considered and explicitly rejected the applicability of its Title V “major source”
107 requirements—including the proactive reporting requirements that would be imposed by
108 WildEarth Guardian’s proposed New Reporting Requirement—to minor sources for a variety of
109 reasons, including the fact that doing so “would greatly increase the workload on EPA and the

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State, with relatively minor air quality benefits, and at a time when they will be strained beyond capacity,” stating that doing so “would be impracticable and infeasible.” 56 Fed. Reg. 21712, 21,726 (May 10, 1991).

EPA’s explained that the exclusion of minor sources “poses few risks to air quality progress. . . . Not only will the sources deferred from the program not be significant contributors to pollution impacts, many will be still be covered by Federal regulations under the Act,” such as NSPS and NESHAP, which remains the case today. EPA also highlighted why WildEarth Guardian’s requested New Reporting Requirement is impractical, including that “[s]mall businesses and small governments do not have the same legal and technical resources that are sometimes necessary to handle successfully a new program.”

EPA’s Justification applies to the entire spectrum of major source versus minor source differentiations, including self-reporting of deviations, and the EPA’s opinion has not changed since 1991 despite the passage of thirty years. EPA’s rationale cuts against imposition of major source-like reporting obligations on all sources in New Mexico subject to the Ozone Precursor Rule.

Noteworthy, too, is the fact that deviation reporting will be required of existing and future major sources even absent adoption of the New Reporting Requirement. In practical effect, therefore, the WildEarth Guardians’ request would impose requirements designed for major sources onto non-major sources, which is unwarranted.

IV. Unprecedented Nature of the Requested New Reporting Requirement

The imposition of WildEarth Guardians’ requested New Reporting Requirement on non-major sources would be an unprecedented requirement. I am not aware of Archrock or its customers being subject to this kind of minor source compliance self-reporting requirement in any

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133 part of the country. To my knowledge, it is not required under any existing federal laws or
134 regulations or under any state analogue, presumably for the reasons already cited in this rebuttal
135 testimony, among others.

136

137 **V. Rebuttal Testimony Summary**

138 For the reasons outlined in the rebuttal testimony above, it is my opinion that the WildEarth
139 Guardians' requested New Reporting Requirement should be rejected for adoption in this
140 proceeding.

141 I thank the EIB for the opportunity to present this rebuttal testimony.

ENVIRONMENTAL PROTECTION AGENCY

40 CFR PART 70

[FRL-3951-6]

RIN 2060-AD16

Operating Permit Program

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule; notice of opportunity for public hearing.

SUMMARY: The EPA is proposing a new part 70 of chapter I of title 40 of the Code of Federal Regulations. This part will contain regulations requiring States to develop, and submit to EPA, programs for issuing operating permits to major stationary sources (including major sources of hazardous air pollutants listed in section 112), sources covered by new source performance standards (NSPS), sources covered by emissions standards for hazardous air pollutants pursuant to section 112, and affected sources under the acid rain program.

Title V of the Clean Air Act (Act) Amendments of 1990, Public Law 101-549, enacted on November 15, 1990, requires EPA to promulgate regulations within 12 months of enactment. Title V establishes timeframes for developing and implementing the State permit programs. Within 3 years of enactment, States must submit proposed permit programs to EPA for approval. Sources subject to the program must submit complete permit applications within 1 year after a State program is approved by EPA or, where the State program is not approved, within 1 year after a program is promulgated by EPA.

Part 70 sources must obtain an operating permit addressing all applicable pollution control obligations under the State implementation plan (SIP) or Federal implementation plan (FIP), the acid rain program, the air toxics program, or other applicable provisions of the Act (e.g., NSPS). Sources must also submit periodic reports to the State and EPA as appropriate concerning the extent of their compliance with permit obligations. The permit and compliance reports will be available to the public, subject to any applicable confidentiality protection procedures similar to those contained in section 114(c). The EPA anticipates that this program will provide more efficient implementation of the Act, including improved enforcement, enhanced State air program resources, and a streamlined

process for revising air pollution control requirements.

DATES: Comments on the proposed regulations must be received by July 9, 1991. The EPA is likely to be unable to extend the public comment period due to the strict 12 month deadline in the Act. The EPA will hold four public hearings on June 4-5, June 6, June 24-25 and July 1-2 at the addresses listed below. Requests to present oral testimony must be received on or before May 24, 1991. If possible, comments should be sent in both paper and computerized form. Two paper copies of each set of comments are requested. Comments generated on computer should also be sent on an IBM-compatible, 5 1/4 inch diskette and clearly labeled. Computer files created with the WordPerfect 5.1 software package should be sent as is. Files created on other software packages should be saved in an "unformatted" mode for easy retrieval into WordPerfect. Comments should refer to specific page numbers whenever possible.

DOCKET: Supporting information used in developing the proposed rules is contained in Docket No. A-90-33. This docket is available for public inspection and copying between 8:30 a.m. and 3:30 p.m. Monday through Friday, at the address listed below. A reasonable fee may be charged for copying.

ADDRESSES: Comments must be mailed (in duplicate if possible) to: EPA Air Docket (LE-131), Attn: Docket No. A-90-33, room M-1500, Waterside Mall, 401 M Street SW., Washington, DC 20460. The public hearings will be held in the Waterside Mall auditorium at the EPA's Headquarters Office in Washington, DC (June 4-5); at the Museum of Science and Industry—West Pavilion Auditorium, 57th Street and Lakeshore Drive, Chicago, Illinois (June 6); in the EPA Regional Office, 75 Hawthorne Street, San Francisco, California (June 24 and 25); in the EPA Regional Office, 1445 Ross Avenue, 12th floor, Dallas, Texas (July 1-2).

FOR FURTHER INFORMATION CONTACT: Michael Trutna at (919) 541-5345. Persons interested in attending the hearing or wishing to present oral testimony should contact Ms. Carol Bradsher in writing at the U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Air Quality Management Division, Mail Drop 15, Research Triangle Park, North Carolina 27711.

SUPPLEMENTARY INFORMATION: The contents of today's preamble are listed in the following outline:

I. Background And Purpose

II. Implementation Principles

III. Proposal Summary

- A. Applicability.
- B. State Permit Program Submittals and EPA Approval.
- C. The EPA Program Oversight.
- D. Complete Permit Applications.
- E. Permit Content.
- F. Permit Issuance and Review.
- G. Fee Demonstration.
- H. Permit/SIP Relationship.
- I. New Source Review/Title V Relationship.
- J. Small Businesses.
- K. Relationship With Section 112 (Air Toxics).
- L. Relationship With Title IV (Acid Rain).
- IV. Detailed Discussion of the Key Aspects of the Proposed Regulations
 - A. Section 70.1—Statement of Program Goals.
 - B. Section 70.2—Definitions.
 - C. Section 70.3—Applicability.
 - D. Section 70.4—State Program Submittals and Transition.
 - E. Section 70.5—Permit Application.
 - F. Section 70.6—Permit Content.
 - G. Section 70.7 and section 70.6(d)—Permit Issuance, Renewal, Reopenings, Operational Flexibility and Revisions.
 - H. Section 70.8—Permit Review by EPA and Affected States.
 - I. Section 70.9—Fee Determination and Certification.
 - J. Section 70.10—Federal Oversight and Sanctions.
 - K. Section 70.11—Requirements for Enforcement Authority.
- V. Additional Topics of Discussion
 - A. Implementation Agreements Between State Agencies and EPA.
 - B. Relationship of Permit Programs to SIP's.
 - C. Implications for Acid Rain Program.
 - D. Judicial Review.
 - E. Implications for Section 112.
 - F. Information Management Support.
 - G. Relationship of Permit Fees to Section 105 Grants.
 - H. Integration of National Pollutant Discharge Elimination System (NPDES) Program Concepts.
- VI. Federal Operating Permit Program
 - A. Purpose.
 - B. Part 71 Default Program.
 - C. Acid Rain Program.
 - D. Maximum Achievable Control Technology (MACT) Extensions.
- VII. Administrative Requirements
 - A. Public Hearing.
 - B. Docket.
 - C. Office of Management and Budget (OMB) Review.
 - D. Regulatory Flexibility Act Compliance.
 - E. Paperwork Reduction Act.
 - F. Federalism Implications.

This preamble is organized to meet the needs of readers who want just an overview of the operating permit program and for readers who want a detailed discussion of the concepts and issues behind today's proposal.

The first section provides background on the effort to amend the Act to include an operating permits program, the

purposes of that action, and the expected benefits. The information is useful to anyone seeking any level of information on the operating permits program.

The second section explains the principles EPA has followed while developing the proposed regulations, and the positions on associated issues. The reader should review the preamble and regulations with these principles in mind.

The program summary section (section III.) provides summaries of the major portions of the program. This section of the preamble is similar to an executive summary of a report and allows the reader to obtain general knowledge of the subjects, after which more detailed discussion can be sought in other parts of the preamble.

The detailed discussion of the regulations is in section IV. This section notes the provisions of the regulations, but also provides comprehensive background on the concepts behind the regulations and any issues or controversial aspects to be considered with respect to regulatory requirements. The design of the regulations generally follows the flow of Title V, as does the discussion in section IV.

Section V presents additional topics important to the operating permits program. These areas are not related to specific regulatory requirements proposed here, so a separate section of the preamble is devoted to their detailed coverage. The subjects covered can be found in the preamble outline above.

Another topic warranting separate coverage is the Federal operating permit program that EPA will implement in the event a State fails to submit an acceptable program or fails to adequately enforce an approved program. Other uses for the program will involve acid rain requirements and early emission reductions from hazardous air pollutant sources. This Federal program is discussed in section VI. of this preamble.

The final section (section VII.) contains the administrative requirements accompanying Federal regulatory actions. These include the topics listed in the preamble outline above.

There is some intended redundancy in this preamble; first because there is a separate summary, but second because a number of issues or topics are related to several regulatory requirements or other topics discussed. In the event the reader focuses on only certain topics, this overlap is intended so as not to ignore a specific issue or subject pertinent to a specific area, just because it is covered elsewhere.

The preamble includes many citations (e.g., (70.6)) to refer the reader to more detail or to the origin of certain requirements. These citation sections will not be followed by their origin such as "of this preamble" or "of Title V." Rather, the reader can recognize the origins of the sections by their nature:

A. Sections of the preamble begin with a roman numeral.

B. Sections of title V of the Act are in the 500's.

C. Sections of the proposed regulations range from 70.1 to 70.11.

D. Sections of the Act are referenced by a three-digit number, such as 112 and 408.

E. Sections of existing EPA regulations generally are preceded by 40 CFR.

This preamble makes frequent use of the term "State," usually meaning the State air pollution control agency which would be the permitting authority. The reader should assume that use of "State" may also include reference to a local air pollution agency or certain Indian tribes. These agencies can either be the permitting authority for the area of their jurisdiction or assist the State or EPA in implementing the title V permitting program. In some cases, the term "permitting authority" is used and can refer to both State and local agencies, when the local agency directly issues permits or assists the State in issuing permits. The term may also apply to EPA, where the Agency is the permitting authority of record.

I. Background and Purpose

The new title V of the Act introduces an operating permits program generally modeled after the NPDES program under the Clean Water Act (CWA). Some of the regulations proposed today are also modeled on NPDES regulations in 40 CFR parts 122, 123, and 124. The EPA, therefore, will generally look to the NPDES program precedent when resolving similar issues under the title V permit program. Part 70 sources must obtain an operating permit; States must develop and implement the program; and EPA must issue permit program regulations, review each State's proposed program, and oversee the State's efforts to implement any approved program, including reviewing proposed permits and vetoing improper permits. When a State fails to adopt and implement its own approvable program, EPA must apply sanctions against the State and ultimately also develop and implement a Federal permit program.

The addition of such a permitting program makes the Act more consistent with other environmental statutes, including the CWA and the Resource

Conservation and Recovery Act, both of which have permit requirements. While to date there has not been an express Federal requirement that States have an operating permit program for air, a recent comprehensive survey of existing State permit programs indicates that about 40 State programs issue operating permits to at least construction projects. Over half of the existing State operating permit programs address both new and existing sources and require renewal of permits periodically. Many of these programs appear to match closely the intent of title V in that they have the basic components required by title V for issuing permits, collecting fees, providing for public participation, reopening permits, and issuing permits for a fixed term. The part 70 regulations have been designed to minimize the disruption to current State efforts by offering as much flexibility as is provided by the law, while ensuring that existing (and new) State programs will meet the requirements of the Act.

A primary benefit of the title V permit program is that it will in general clarify which requirements apply to a source in a single document and, thus, should enhance compliance with the requirements of the Act. Currently, a source's obligations under the Act, ranging from emissions limits to monitoring, recordkeeping, and reporting requirements, are in many cases scattered among numerous provisions of the SIP or Federal regulations. In addition, regulations are often written to cover broad source categories and, therefore, it may be unclear which, and how, general regulations apply to a source. Similarly, applicable provisions are sometimes not explicit as to reporting requirements (e.g., when to submit periodic compliance reports to EPA or the States). As a result, EPA often has no easy way to establish whether a source is in compliance with regulations under the Act.

The title V permit program will enable the source, States, EPA, and the public to better understand the requirements to which the source is subject, and whether the source is meeting those requirements. Increased source accountability and better enforcement should result. The program will also greatly strengthen EPA's ability to implement the Act and enhance air quality planning and control, in part, by providing the basis for better emission inventories.

Another benefit of the title V permit program is that it provides a ready vehicle for the States to administer significant parts of the substantially revised Federal air toxics program and

the new acid rain program. This enhances EPA's ability to oversee all programs under the Act. Specifically, the Act requires that States use the permit system to administer the air toxics program. In addition, States will be responsible for reviewing and issuing permits to implement the second phase of the acid rain program (with permitting activities beginning in 1996), and will play a significant role in ensuring compliance with the acid rain requirements in 40 CFR parts 72 through 78 (to be promulgated at a later date).

Finally, an important benefit is that the permit program contained in these regulations will ensure that States have resources necessary to develop and administer the program effectively. In particular, the permit fees provisions of title V will require sources to pay their fair share of the costs of developing and implementing the permit program. To the extent the fees are based on emission levels, the fees will create an incentive for sources to reduce emissions.

II. Implementation Principles

The passage of the amendments of 1990 was a major accomplishment in the protection of public health and the environment in the United States. The new Act sets forth ambitious goals which can only be achieved through effective and expeditious implementation by EPA and State and local governments. Today's proposed rulemaking is one of the first of several important actions that EPA will be taking to accomplish its rule development responsibilities under the Act. The EPA believes that the following principles should guide the design and implementation of title V regulations and related programs.

These principles are necessary to preserve the legislative intent underlying the content of title V. The EPA intends that these principles be appropriately incorporated into all aspects of program development and implementation by both States and EPA. In particular, EPA will employ them when it is responsible for developing rules, overseeing State or local agency programs and permits, or issuing permits. The public is urged to frame its comments on today's proposal keeping in mind the extent to which sections of this proposal are consistent with the various implementation principles outlined below.

A. Ensure Environmental Protection

Congress's basic goal in adopting the title V permit program is to achieve improved air quality by establishing a broad-based tool to aid effective implementation of the Act and to

enhance the Agency's ability to enforce the Act. The EPA believes it is important that other implementation objectives stated below complement this objective, not undercut the potential of title V for strengthening air quality management efforts across the country.

B. Incorporate Broad-Based Perspective for Rule Development

The EPA continually seeks a better understanding of the key concerns of those most affected by title V in order to have a broad-based perspective during the regulation development process. With this goal, the Agency hopes to make implementation efforts more effective and to minimize the chances for conflict. Today's proposal was developed with the benefit of insight from important affected parties (including State and local governments, major industries, small businesses, and environmental organizations) which were actively involved in the title V legislative process. The EPA is interested in receiving additional input from these and other interested parties during the public comment period.

C. Maintain an Effective Partnership With State and Local Governments

The EPA recognizes that the bulk of the responsibility for implementing title V falls upon State and local governments. Thus, a key principle in developing today's proposed rules has been to build upon existing operating permit programs and to provide the States with regulatory flexibility wherever possible to maintain existing program elements in implementing title V.

D. Minimize Redundancy in SIP's and Permit Programs

The title V permit program is designed to complement SIP's in achieving improved air quality management across the country. Because operating permits will contain more source-specific details than SIP's, EPA intends that source-specific permit changes be implemented wherever possible solely through the procedures in the permit program rather than through the SIP process. In this way, subject sources and governments will experience less burden and delay than would be associated with a multi-step procedure which includes the more cumbersome SIP revision process.

E. Encourage Early State Program Development

The EPA supports early adoption of the program by States in order that the title V framework enable them to implement more quickly other new Act programs. During the transition period,

the EPA intends to assist States with their development of timely title V programs and their efforts to obtain interim program approval.

F. Minimize Small Business Concerns

The Act requires certain small businesses to become regulated for the first time via the requirement to obtain a title V operating permit. The EPA will be sensitive to the impact of these regulations on these sources by phasing in and streamlining the permitting requirements as appropriate. Where possible, EPA intends to promulgate rules which employ cost-effective permitting techniques, such as general permits, to simplify the permit application and issuance process.

G. Promote Pollution Prevention

The EPA encourages permitting authorities to promote cost-effective pollution prevention alternatives where possible in their permitting activities. Permits can, consistent with the law, be used to define creative activities for shifting to inherently cleaner processes, including the maximum use of performance standards, both in meeting requirements for criteria pollutants and the acid rain program, and in meeting otherwise applicable requirements of section 112 of the Act.

H. Facilitate Use of Market-Based Incentives

The operating permit program is intended to be an effective administrative tool for achieving cost-effective improvements in air quality through market-based principles. Title V operating permits will be used to implement the requirements of title IV of the Act. Acid rain permit requirements must not hinder the effective operation of the allowance trading market. In addition, the title V permit program will be used to facilitate the incorporation of market-based incentives, to the extent they are consistent with the Act.

I. Allow Flexibility in State Programs and Source Permits

Except as necessary to ensure national consistency to support the market-based, acid rain allowance trading system, requirements for title V programs are intended to be flexible enough to allow States a reasonable range of options in designing their State programs for EPA approval. Unnecessary regulatory detail will unduly jeopardize approval of different but effective State and local programs. Sources must also be provided flexibility within their permits. Specifically, they should be allowed to

make certain types of changes without having to undergo full permit-modification procedures. This will be especially important to some industries so that their market competitiveness is not jeopardized.

J. Establish Certainty for Permitted Sources

A title V permit should articulate a clear road map of source obligations to inspire confidence in the system. The permit shield provisions should be used by the permitting authority to provide a stable reference point from which to govern the operation of the source until the time of permit renewal, unless there are clear reasons that require an interim reopening of the permit (e.g., to incorporate newly-promulgated standards with near-term compliance dates).

K. Enable Effective and Efficient Information Transfer

The EPA intends that information contained in permits, permit applications, and compliance certification reports (to the extent not protected under laws of confidentiality) be used for several air quality management purposes. The EPA intends to promote consistent data submittals to track progress, consolidate current reporting burdens, and inform affected parties of a source's compliance status relative to its enforceable obligations.

L. Prioritize EPA Oversight on Overall Program Implementation

The EPA takes seriously its new responsibilities for reviewing permits and overseeing State/local program implementation. The Agency understands, however, that State and local governments have administered effective operating permit programs for many years and can be expected to do so in the future without "micro-management" from EPA. Concern has been raised that overuse of EPA's permit veto authority could lead to serious administrative roadblocks for permitting agencies. Within the limitations of its permit review responsibilities as stated in the Act, the Agency intends to place more priority on the oversight of overall program implementation than on the review of noncontroversial, individual permits so long as clean air goals are being achieved.

M. Promote Possibilities for Integrated Permit Programs

The EPA intends that the title V rulemaking provide the basis for opportunities to establish a permit program to consolidate the review of a source's impact with respect to the

Clean Air Act and to other environmental media. In particular, the Agency encourages close coordination of the preconstruction and operating permit review programs for air to minimize duplication and delay. Comments are specifically solicited as to how integrated permitting can be promoted and not inhibited by this rulemaking.

N. Promote Simple and Streamlined Regulations

It is EPA's intent to simplify and streamline these regulations to the maximum extent possible. To this end, the Agency solicits comment as to how this proposal might be simplified and/or streamlined.

III. Proposal Summary

A. Applicability

The title V operating permits program requires all part 70 sources to submit permit applications to the appropriate permitting authority within 1 year of the effective date (i.e., date of EPA approval) of the State program. The proposed operating permit program applies to the following sources:

(1) Major sources, defined as follows:

(a) Air toxics sources, as defined in section 112 of the Act, with the potential to emit 10 tons per year (tpy) or more of any hazardous air pollutant, 25 tpy or more of any combination of hazardous air pollutants, or a lesser quantity of a given pollutant if the Administrator so specifies (501(2)(A)).

(b) Sources of air pollutants, as defined in section 302, with the potential to emit 100 tpy or more of any pollutant (501(2)(B)).

(c) Sources subject to the nonattainment area provisions of title I, part D, with the potential to emit pollutants in the following or greater amounts (501(2)(B)):

		TPY
(i)	Ozone (VOC's and NO _x) ¹	50
	Serious.....	50 (VOC only)
	Transport regions not severe or extreme.....	25
	Severe.....	10
(ii)	Carbon monoxide.....	50
	Serious (where stationary sources contribute significantly).....	50
(iii)	Particulate Matter (PM-10).....	70
	Serious.....	70

¹ For this purpose, Title I treats volatile organic compounds (VOC) and oxides of nitrogen (NO_x) sources differently. In areas qualifying for an exemption under section 182(f), NO_x sources with the potential to emit less than 100 tpy would not be considered major sources under Part D of Title I. In areas not qualifying for this exemption, NO_x sources are subject to the lower thresholds created by section 182(f). In ozone transport regions, a lower

threshold of 50 tpy for VOC sources is created by section 184(b). Because section 182(f) does not refer to section 184(b), the lower threshold in ozone transport regions applies to VOC sources, but not to NO_x sources. Whatever its location, any 100 tpy source would be considered a major source under section 302.

(2) Any other source, including an area source, subject to a hazardous air pollutant standard under section 112.

(3) Any source subject to NSPS under section 111.

(4) Affected sources under the acid rain provisions of title IV (501(1)).

(5) Any source required to have a preconstruction review permit pursuant to the requirements of the prevention of significant deterioration (PSD) program under title I, part C or the nonattainment area new source review (NSR) program under title I, part D.

(6) Any other stationary source in a category EPA designates in whole or in part by regulation, after notice and comment.

A major source is defined in terms of all emissions units under common control at the same plant site (i.e., within a contiguous area that are in the same major group industrial classification). Once subject to the part 70 operating permit program for one pollutant, a source must be reviewed for emissions of all pollutants regulated under the Act from all regulated emissions units located at the plant. As a general rule, all emissions of regulated pollutants are also subject to fee assessment. The program (including combinations of partial programs) applies to all geographic areas within each State, regardless of their attainment status, although for purposes of the acid rain permit program requirements, the program applies only within the contiguous 48 States.

The EPA is authorized, consistent with the applicable provisions of the Act, to exempt one or more source categories (in whole or in part) from the requirement to have a permit if the Agency determines that compliance with the part 70 regulations would be "impracticable, infeasible, or unnecessarily burdensome" (section 502(a)). The EPA may not, however, exempt any "major" or "affected" (i.e., acid rain) source from the permitting requirements. States may, if they wish, allow and/or charge fees for federally-exempted sources.

The EPA believes that coverage at the outset of all the sources described above would be both impractical and infeasible. Therefore, to promote an orderly phase-in of the program, EPA is proposing to defer initially from coverage for 5 years from the date of program approval all sources which are

not major. Nonmajor sources in nonattainment areas will receive this deferral only if the permitting authority makes a showing that the State can effectively enforce its SIP obligations on such sources without using federally-enforceable operating permits. The Administrator also reserves the ability to determine on a case-by-case basis future inclusion of nonmajor sources which become subject to new section 112 standards.

Any source whose initial applicability is deferred may opt to obtain a permit prior to the end of the 5-year deferral period. All deferred sources will be required to submit permit applications by the end of the 5-year deferral period, unless they are sources or source categories that receive a continued exemption (i.e., EPA determines that permitting such source categories would be impracticable, infeasible, or unnecessarily burdensome) in a future rulemaking.

B. State Permit Program Submittals and EPA Approval

Title V requires EPA to promulgate regulations establishing the basic elements of a State permit program. State and local pollution control agencies or interstate compacts may implement provisions of title V, as long as all geographic areas within each State are covered by a permit program. (As mentioned, reference to the "State" will include reference to local agencies where appropriate which would allow granting of a partial program for a specific geographic area within a State.) The EPA oversees development of State programs and enforces the obligation to implement a program in each State. Should a State fail to develop a permit program, the EPA must implement a program for that State (501(4), 502(d)(1), and 302(b)).

(1) Minimum Program Requirements

Within 1 year of enactment of the 1990 Amendments (November 14, 1991), EPA must promulgate regulations establishing the minimum elements of a State operating permit program. These regulations must include the following elements:

(a) Requirements for permit applications, including standard application forms and criteria for determining the completeness of applications (502(b)(1)).

(b) Monitoring and reporting requirements (502(b)(2)).

(c) A permit fee system (502(b)(3)).

(d) Provisions for adequate personnel and funding to administer the program (502(b)(4)).

(e) Authority to issue permits and assure that each permitted source complies with applicable requirements under the Act (502(b)(5)(A)).

(f) Authority to terminate, modify, or revoke and reissue permits "for cause."

(g) Authority to enforce permits, permit fee requirements, and the requirement to obtain a permit, including civil penalty authority in a maximum amount of not less than \$10,000 per day for each violation, and "appropriate criminal penalties" (502(b)(5)(E)).

(h) Authority to assure that no permit will be issued if EPA timely objects to its issuance (502(b)(5)(F)).

(i) Adequate, streamlined, and reasonable procedures for expeditiously determining when applications are complete and for processing applications; for public notice, including offering an opportunity for public comment and a hearing; for expeditious review of permit actions, and State court review of the final permit action (502(b)(6)).

(j) Authority and procedures to provide that the permitting authority's failure to act on a permit or renewal application within the deadlines specified in the Act (section 503 and the deadlines for permitting under acid rain provisions in title IV) shall be treated as a final permit action solely to allow judicial review by the applicant or anyone else who participated in the public comment process to compel action on the application (502(b)(7)).

(k) Authority and procedures to make available to the public any permit application, compliance plan for noncomplying sources, permit, emissions or monitoring report, and compliance report or certification, subject to the confidentiality provisions similar to those of section 114(c) of the Act (502(b)(8)); the contents of the permit itself are not entitled to confidentiality protection (503(e)).

(1) Provisions to allow operational flexibility at the permitted facility (502(b)(10)).

(2) State Program Development.

Within 3 years of enactment (2 years after EPA is obligated to issue its permit program regulations), the Governor of each State shall submit to EPA a permit program meeting the requirements of title V. A State may submit its current or proposed program to EPA for approval any time after part 70 rules become final.

The Governor must also submit a legal opinion from the attorney general, attorney for those State air pollution control agencies with independent legal

counsel, or the chief legal officer of an interstate agency stating that the laws of the State, locality, or interstate compact provide adequate authority to carry out the program (502(d)(1)). The EPA encourages early action by each State to evaluate the potential of its existing enabling legislation to implement title V and to take additional actions, as needed, to ensure a timely and approvable program submittal.

Several States may need new legislative authority in a number of areas in order to fulfill the requirements of the Act, including (but not limited to): Authority to charge, collect, retain, and expand adequate permit fees, and to collect civil penalties of a maximum amount of at least \$10,000 per day per violation. The EPA intends to assist States in identifying and obtaining any required new authorities.

(3) The EPA Review of Program Submittals.

Within 1 year after receiving the State's program, EPA shall approve or disapprove it, in whole or in part. The EPA may approve the program to the extent it meets the requirements of the Act and EPA's permit program regulations.

If EPA disapproves the program, or any part of it, EPA must notify the Governor of any revisions necessary for EPA approval. The State then has 180 days from this notice to revise and resubmit the program (502(d)(1)). When EPA approves a program, EPA must suspend issuance of Federal permits, but may retain jurisdiction over permits still under administrative or judicial review (502(e)).

(4) Interim Program Approvals.

If a program is not fully approvable, EPA may grant interim approval to a permit program, so long as the program "substantially meets" the requirements of title V. Criteria for satisfying the "substantially meets" test are proposed to include: (1) The commitment and capability to collect fees adequate to cover the costs of the State permitting program, (2) the legal authority to assure that affected sources comply with all applicable requirements under the Act, (3) fixed permit terms not to exceed 5 years, (4) the opportunity for public participation in the permit issuance process, (5) the opportunity for EPA to review and object to the issuance of any permit, and (6) the requirement that a proposed permit will not be issued if EPA objects to its issuance.

In the notice of final rulemaking granting interim approval, EPA must specify the changes the State must make

to receive full approval. The EPA may grant interim approval, which may not be renewed, for a period of up to 2 years. During the interim approval period, the State is protected from sanctions for failure to have a program and EPA is not obligated to promulgate a Federal permit program in the State (502(g) and (d)(2)-(3)). Permits issued under a program with interim approval have full standing with respect to title V and the 1-year time period for source submittal of permit applications begins upon interim approval as does the 3-year time period for processing the initial permit applications discussed in the following section.

(5) State Permit Review.

As noted above (III.B.(4)), sources are required to submit permit applications to the permitting authority within 1 year of program approval, whether full or interim. For title IV (acid rain) sources, however, specific superseding deadlines are provided for the submission of applications for Phase II permit applications, which will not be due to States until January 1, 1996 (408(D)(2)). For the initial round of permit applications, the permitting authority must establish a phased schedule for processing permit applications submitted within the first full year after program approval. This schedule must assure that the permitting authority will act on at least one-third of the permits each year over a period not to exceed 3 years after approval (interim or full) of the program (503(c)). The EPA urges States to encourage early submittals of complete applications.

States are required to issue permits under the acid rain program by December 31, 1997 (408(D)(3)). For most States, this deadline will coincide roughly with the second year of initial permit action. Additionally, expedited review and issuance procedures may be required for permit applications for sources pursuing compliance extensions for early reductions of hazardous air pollutants under section 112(i)(5).

After acting on the initial round of applications, the permitting authority must act on a completed application and issue or deny a permit within 18 months after receiving the complete application. The permitting authority should also establish reasonable procedures to prioritize review of permit applications, especially in the case of applications for new construction or modifications as defined in Title I.

C. The EPA Program Oversight

Federal authority for oversight of State operating permit programs is described in § 70.10. Such oversight

activities include situations where a State fails to submit an approvable permit program, or EPA determines that a permitting authority is inadequately administering and enforcing a permit program or an approved permit fee program.

(1) State Failure to Submit A Program

The EPA must apply sanctions to a State where the Governor has not submitted a program within 18 months after the deadline for submittal, or where 18 months have passed since EPA disapproved the program in whole or in part (502(d)(2)(B)). The sanctions are the same as those in Title I: A highway funding cutoff, and a two-to-one offset ratio for new or modified sources (179(b)). The EPA may apply the offset ratio sanction only in areas where the failure to submit or disapproval relates to an air pollutant for which the area is designated nonattainment. One sanction may be applied any time during the 18-month period following the date required for program submittal or program revision (502(d)(2)(A)). The EPA must apply one of these sanctions after the above-referenced periods elapse. If the EPA finds a lack of good faith effort on the part of the State, both sanctions are to apply until the State comes into compliance with the requirements of title V (179(a)(4)). If the State has no approved program 2 years after the date required for submission of the program, EPA must promulgate, administer, and enforce a Federal permit program for the State (502(d)(3)).

If the EPA determines that a State's fee program is not approvable or that a permitting authority is not adequately administering an approved fee program, the EPA will promulgate under part 71 a Federal permit program which the Agency will administer and enforce where the State fails to submit, correct, or implement its program. The Agency has the authority to collect reasonable fees from the permittees to cover the costs of administering the program. Any source that fails to pay fees shall be subject to additional penalties. Fees, penalties, and interest collected by the EPA will be deposited in a special U.S. Treasury fund for permitting activities and held for future appropriation.

(2) State Failure to Implement a Program

Whenever EPA determines that a permitting authority is not adequately administering and enforcing a program, EPA must notify the State (502(i)(1)). If EPA determines that the failure to administer and enforce the program persists 18 months after EPA's notice to the State, EPA must apply the same sanctions in the same manner as required for a failure to submit an

approvable program (502(i)(2)). The EPA has the option of imposing any one of the sanctions before the 18-month period has passed (502(i)(1)). If the State has not cured the failure to administer and enforce the program within 18 months after EPA's notice, EPA must promulgate, administer, and enforce a Federal permit program within 2 years after the notice to the state (502(i)(4)).

D. Complete Permit Applications

Permit Applications Each State program must establish specific criteria to be used in defining a complete permit application. A complete application is one that the permitting authority has determined to contain all the necessary information needed to begin processing the permit application. The permitting authority can determine, however, that the application is not complete if the source fails to provide timely updates to the application that the permitting authority needs to issue the permit within the specified deadlines.

The permitting authority must provide notice to the source when a complete application has been received. In the event that no notice is provided to the source within 30 days after receipt of the application by the permitting authority, the application shall be deemed complete.

A source which files a timely and complete application for a permit or a renewal will not be liable for failure to have a permit if the permitting authority delays in issuing or reissuing the permit, provided the delay in issuing the permit was not due to the applicant's failure to respond in a reasonable and timely manner to written requests from the permitting authority for additional information needed to evaluate the application. This protection also applies to sources requiring NSR permits. They must have filed a complete application for a title V operating permit and have a preconstruction permit before operating the new source or major modification (503(d)). In general, a complete application must be submitted according to the transition schedule approved within the program and in a timely way for subsequent renewals. "Timely" for renewals is proposed to mean 18 months prior to expiration of the permit, unless some other time is approved by the Administrator. Correspondingly shorter times might be appropriate when the fixed term of the permit is for less than 5 years or where the permitting authority is obligated to act on permit renewals in less than 18 months. In no event will EPA approve a time period which is shorter than 6 months before permit expiration.

All complete applications must contain information which identifies a source, its applicable air pollution control requirements, the current compliance status of the source, the source's intended operating regime and emissions levels, and must be certified as to their truth, accuracy, and completeness by a responsible official after making reasonable inquiry. Each permit application must, at a minimum, include a completed standard application form (or forms) and a compliance plan, which describes how a noncomplying source plans to achieve all applicable air quality requirements under the Act. The plan must include a schedule of compliance and a schedule for the source to submit progress reports to the permitting authority no less frequently than every 6 months. All sources must submit a compliance certification report at least once a year. Parts 72 through 78 will contain specific requirements for acid rain affected sources regarding compliance schedules, progress reports, and compliance certifications.

The minimum data elements proposed for inclusion in all standard application forms, as well as the basic requirements for compliance plans for noncomplying sources, are presented in § 70.5 of the regulations. With the exception of certain Federal programs (e.g., acid rain), EPA will not require that any specific form be used by States as long as the minimum data elements are provided to EPA. However, the Agency will encourage the use of certain model forms as a preferred way to meet the requirements of § 70.5.

Additional information may be required from some subject sources. Those located in nonattainment areas under title I, part D of the Act may be required to fulfill the emissions statement requirements for certain sources of VOC's and NO_x. Similarly, sources of hazardous air pollutants subject to section 112 which are attempting to comply with alternative emissions limits will also need to submit additional information.

E. Permit Content

The State regulations required under Title V and proposed in § 70.6 must assure that permits meet all applicable requirements of the Act and include the following:

(1) A fixed term, not to exceed 5 years (502(b)(5)(B)), except that affected sources under title IV must have 5-year fixed terms (408(a)) and solid waste incinerators under section 129(e) must have up to a 12-year fixed term.

(2) Limits and conditions to assure compliance with all applicable

requirements under the Act, including requirements of the applicable SIP (504(a)) and title IV.

(3) A schedule of compliance for noncomplying sources, which is defined as a schedule of remedial measures, including an enforceable sequence of actions or operations, leading to compliance with applicable requirements under the Act (504(a) and 501(3)).

(4) Inspection, entry, monitoring, compliance certification, recordkeeping, and reporting requirements to assure compliance with the permit terms and conditions, consistent with any monitoring regulations that EPA promulgates under section 504(b) and title V (504(c)). Nothing in this regulation should be read to require continuous emissions monitoring in situations where it is not otherwise prescribed.

(5) A provision describing conditions under which any permit for a major source with a term of 3 or more years must be reopened to incorporate any new standard or regulation promulgated under the Act (502(b)(9)).

(6) Provisions under which the permit can be revised, terminated, modified, or reissued for cause.

(7) Provisions ensuring operational flexibility within a permit so that certain changes can be made within a permitted facility without a permit revision, provided that no "modification" (as defined in title I of the Act) would occur and a notice is provided to the permitting authority at least 7 days in advance where the permit would not allow such changes (502(b)(10)).

(8) A provision that nothing in the permit or compliance plan issued pursuant to title V of the Act shall be construed as affecting allowances (408(b)).

The operational flexibility provision contained in title V must be implemented carefully and fairly so that a source can respond quickly to changing business opportunities while, at the same time, the permitting authority is assured that the source will meet all the applicable requirements of the Act. Before considering EPA's proposed provisions on operational flexibility, however, it should be recognized that the nature of a permit is to allow anything that it does not expressly prohibit. That is, a source may not only do what its permit specifically allows, but also what the permit terms do not specifically prohibit. Thus, when § 502(b)(10) speaks of changes that do not result in exceedances of the emissions allowable under the permit, this means any change that does not violate an express prohibition in the permit is allowed. Several approaches to

achieving this flexibility in permits are described in section IV.F.(5). The EPA solicits comments on these and any other suggested approaches.

F. Permit Issuance and Review

Proposed regulations concerning the processes for permit issuance, review, renewal, revision, and reopening are found in § 70.7. Briefly, these include:

(1) Timing of Permit Application, Review, and Issuance

Sources required to have a permit must submit a complete permit application and compliance plan (for noncomplying sources) to the permitting authority within 12 months of the effective date of the State program. The permitting authority may designate a period of less than 12 months for initial submission of applications. Permit applications and compliance plans required under title IV of the Act (acid rain) must be submitted on a schedule different from those required under title V. Phase II sulfur dioxide (SO₂) permit applications and compliance plans must be submitted to the States by January 1, 1996 (408(d)(2)). States must act on these applications by December 31, 1997 (408(d)(3)). These applications and compliance plans will be binding on the source until a permit has been issued. Applications with respect to NO_x under title IV will be due January 1, 1998.

(2) Permit Notification to EPA and Affected States

The permitting authority must provide notice to certain States and EPA of permit applications received and proposed permits. It must submit to EPA the following:

(a) The application for any permit, renewal, or revision, including any compliance plan, or any portion EPA determines it needs to review the application and permit effectively; and

(b) Each permit proposed to EPA and each permit issued as a final permit by the State (505(a)(1)).

In regard to notification of States, the permitting authority is required to notify all affected States of each permit application and each permit submitted for public comment. The authority must also notify each State within 50 miles of the applicant source. The permitting authority must give all such States an opportunity to submit written recommendations for the permit. If the authority refuses to accept those recommendations, it must provide its reasons for refusal in writing (505(a)(2)).

The EPA may waive its own and neighboring States' review of permits for any category of sources, except major

sources, either when approving an individual program, or in a regulation applicable to all programs. The EPA may also waive its own right to review, but maintain the requirement for a State to notify neighboring States (505(d)). During phase II of the acid rain program, the Agency does not intend to waive its own right to review affected sources.

(3) The Agency Review and State Response

The EPA must by law object to any permit that would not be in compliance with the applicable requirements of the Act, including the applicable implementation plan. If EPA objects within 45 days after receiving either the proposed State permit or the notice that the permitting authority has refused to adopt a neighboring State's recommendations for the permit, the permitting authority must respond to EPA in writing. The EPA must provide the permitting authority and permit applicant a statement of reasons for the objection (505(b)(1)).

The permitting authority may not issue the permit with respect to title V if EPA objects, unless it revises the permit to meet EPA's objections. If the authority has already issued the permit, EPA will modify, terminate, or revoke the permit, and the permitting authority must reissue it to meet EPA's objection (505(b)(3)). The permitting authority has 90 days after EPA's objection to revise the permit (unless the permitting authority does so first). If the permitting authority fails to do so, EPA must issue or deny the permit (505(c)).

(4) Judicial Review and Public Petition

An approvable program must provide for judicial review in State court of the permit action whether the review is obtained by the applicant, anyone who participated in the public comment process, or any other person who could obtain judicial review of the action under applicable law (502(b)(6)).

Within 60 days after the expiration of the 45-day EPA review period, any person may petition the Administrator to veto a permit if EPA fails to object. The objections in the petition must have been raised during the comment period on the permit provided by the State issuance process, unless the petitioner shows that it was impracticable to raise the objections at that time. The petition shall not postpone the effectiveness of a permit that has been issued.

The Administrator shall grant or deny a petition within 60 days after it is filed. The EPA must issue an objection if the petitioner demonstrates to the satisfaction of the Administrator that the permit is not in compliance with the

Act, including the applicable SIP and title IV requirements. If the Administrator denies the petition, the denial is subject to review in the Federal Court of Appeals under section 307 (505(b)(2)).

Where EPA objects to a permit and the State fails to meet EPA's objection, EPA must then issue or deny the permit. The Federal Court of Appeals may review EPA's final action in issuing or denying the permit under section 307. Title V provides that EPA's objection to a permit is not subject to judicial review until EPA takes final action on the permit (505(c)).

(5) Permit Shield and Reopenings

Section 504(f) of the Act defines the permit shield provision of title V, which enables States and the Administrator to provide sources with greater certainty as to their legal obligations under the Act. This section establishes that the permit may provide that compliance with the permit shall be deemed compliance with all other applicable provisions of the Act, if the applicable requirements of such provisions are included in the permit, or if the permitting authority, in acting on the permit, determines that such other provisions (which shall be referred to in such determinations) are not applicable and if this determination or a concise summary thereof is included in the permit. The EPA encourages States to employ the "permit shield" routinely to help stabilize the permit process and give greater certainty to the regulated community.

The EPA is soliciting comment on the potential scope and effect of the permit shield. It is possible to read the shield provision narrowly, limiting its protection to those requirements the permit explicitly addresses. The EPA believes, however, that the shield provision should be interpreted broadly, thus protecting a source from enforcement of a whole class of Act requirements if the permit addresses any one of those requirements.

Under either interpretation, EPA may limit the scope of the permit shield by rule. While EPA is proposing a broad interpretation of the shield in today's notice, the Agency intends to prohibit use of the shield in cases where the source initiates changes that result in requirements becoming applicable to the source beyond those contained in the permit (until such changes are later incorporated into the permit) or where an applicable requirement is omitted from a permit. In no event can any source seeking to obtain or renew a part 70 permit be shielded from enforcement action that results from violations of any

applicable requirements (including orders and consent decrees) that occurred before the permit was issued or from requests for additional information pursuant to section 114 of the Act.

Any approvable program, at a minimum, must require that the permitting authority will revise all permits with terms of 3 or more years to incorporate applicable requirements under the Act that are promulgated after issuance of the permit. Such revisions must be made using the notice and comment procedures for permit issuance, and must be made within 18 months after the promulgation of the new requirement. No revision is required if the effective date of the requirement is after the expiration of the permit term (502(b)(9)). The EPA is proposing to interpret the provision as being applicable to major source permits with a remaining life of 3 or more years.

Approvable programs also must require that the permitting authority may terminate, modify, or revoke permits for cause (502(b)(5)(D)). "Cause," for example, may exist when the permit contains a material mistake made in establishing the emissions standards or limitations, or in other permit requirements. For purposes of acid rain, permit revision procedures will be governed by part 72.

Phase II acid rain permits will need to be reopened to incorporate NO_x provisions, which are not due until 1998. Excess emission offset plans and all allowance allocations and transfers, however, shall be deemed incorporated into each unit's permit, upon recordation or approval by the Administrator, without further permit revision and review.

If EPA finds that cause exists to reopen a permit, EPA must notify the permitting authority and the source. The permitting authority has 90 days after receipt of the notification to forward to EPA a proposed determination of termination, modification, or revocation and reissuance of the permit. The EPA may extend the 90-day period for an additional 90 days if a new application or additional information is necessary. The EPA then may review the proposed determination under the review procedures of permit issuance. If the permitting authority fails to submit a determination or if EPA objects to the determination, EPA may terminate, modify, or revoke and reissue the permit. The EPA must provide notice and "fair and reasonable procedures" when it terminates, modifies, or revokes and reissues a permit (505(e)). The Agency proposes that any permit

reopenings accomplished by the permitting authority will supersede any applicable portion(s) of a permit shield that is in effect.

(6) Permit Revisions

Section 502(b)(6) does not define with precision how permit revisions are to be processed, thus leaving EPA discretion for construing this provision, as explained below. The EPA is today proposing three types of permit revisions that are needed to amend the part 70 permit to accommodate operational changes which do not qualify under the operational flexibility provisions of section 502(b)(10) (IV.F.(5)) as previously discussed. Instead, they trigger the need for revision to permits prior to their renewal.

The first class of permit revisions consists of minor permit amendments. These are changes which go beyond the activities allowed in the original permit that increase the total emissions allowed under the permit (for any regulated pollutant from emissions units addressed by the permit), but do not rise to the level of modifications subject to title I NSR procedures and do not violate any applicable Federal requirements.

Under such a "fast track" process for minor permit amendments, States are free to adopt procedures to allow such changes to take effect automatically after a specified period of time (no less than 7 days), as long as the permitting authority does not object during this period. The second class of permit revisions are administrative permit amendments. These changes are either insignificant ones which adjust details not important to air quality (e.g., change in source name) within part 70 permits or changes which have been already reviewed and processed under new source review procedures approved into the SIP. Changes qualifying as administrative permit amendments can be administratively incorporated into the operating permit by the permitting authority.

The third class of permit revisions is permit modifications. A permit modification is a revision to a part 70 permit that meets the requirements of section 707(d) of this part. A permit modification is subject to the same procedures required for initial permit issuance, including EPA review and the opportunity for public comment and hearing. After receipt of an application for a modified permit, permitting authorities will focus their efforts on review of the specific changes indicated in the application. However, they must also evaluate the application to confirm that it assesses the impacts of such

changes on other aspects of the source's operations and assures continued ability to comply with all applicable requirements of the Act.

Sources subject to requirements of the acid rain program must hold allowances to cover their emissions of SO₂. These sources will have conditions in their permits prohibiting emissions exceeding the number of allowances held. Sources holding emissions allowances under the acid rain program may buy, sell, or trade those allowances. Allowance transactions registered by the Administrator will cause automatic amendment of the source's permit as a matter of law, without following either the permit modification or amendment procedures described above. Regulations governing allowance trading will be promulgated at 40 CFR part 73.

(7) Permit Renewal

Each permit is to have a fixed term not to exceed 5 years (except that permits for municipal waste combustors may have terms up to 12 years). Renewal permits are subject to the same requirements as those applying to initial permits, including the requirement for a timely and complete application and compliance plan for noncomplying sources and processing by the permitting authority within 18 months of a complete application.

The source will be able to operate after expiration of the permit only if it has submitted a timely and complete application for a new permit, as mentioned in the previous discussion on complete applications (III.D.). To maintain the protection afforded by having a complete application, the source applicant still must respond in a reasonable fashion upon written request by the permitting authority to provide additional information needed to develop and issue the permit. Should a permit expire before a source submits a complete application, the source's right to operate is terminated unless and until a complete application is filed with the reviewing authority (503(d)), subject to a grace period where only administrative penalties would be applicable. The source is then subject to enforcement action (for operating without a title V permit) for any period of time that it has operated without a renewed permit and without having submitted a complete application. The application shall be deemed to be complete 30 days from the date of its submission to the permitting authority, unless the permitting authority has already determined that the application is not complete. In addition, consistent with the established precedent in the NPDES program under the CWA, EPA is proposing that, except

where inconsistent with State law or as provided in part 72 for the acid rain portions of a permit, the conditions of a permit where the fixed term has expired still remain enforceable until they are replaced by those in a reissued permit.

G. Fee Demonstration

A key requirement of State operating permit programs is that States establish an adequate permit fee program. Regulations concerning fee programs and appropriate criteria for determining the adequacy of such programs are set forth in § 70.9.

An approvable permit program must require the fee payer to pay an annual fee (or the equivalent over some other period) sufficient to cover all "reasonable (direct and indirect) costs" required to develop and administer the permit program (502(b)(3)(A)). The EPA proposes to interpret reasonable costs to include the costs of administering most air control program activities which involve sources subject to title V. All fees collected by a permitting authority under title V must be used solely to support the permit program (502(b)(3)(C)(iii)). The EPA is proposing that these fees must cover a broad range of costs, including:

- (1) Reviewing and acting upon any application.
- (2) Implementing and enforcing the permit, including any permit issued before enactment of title V, but not any court costs or other costs associated with an enforcement action.
- (3) Emissions and ambient monitoring, including continuous emissions monitors (CEMS) (where applicable) and inspections.
- (4) Preparing generally applicable regulations or guidance.
- (5) Modeling analyses and demonstrations.
- (6) Preparing inventories and tracking emissions (502(b)(3)(7)(A)(i)-(vi)).
- (7) Permit-related functions performed by air pollution control agencies which do not issue permits directly.
- (8) Development and administration of the State small business stationary source technical and environmental compliance assistance program as it applies to part 70 sources.
- (9) Information management activities to support and track permit applications, compliance certifications, and related data entry.

The program must presumptively collect a fee amount from all permitted sources equal to at least \$25 per ton (1990 baseline) for the actual emissions of each regulated pollutant, with the exception of carbon monoxide (502(b)(3)(B) (i) and (ii)) and with the

further exceptions that the State is not required to count emissions of any pollutant from any one source in excess of 4,000 tpy (502(b)(3)(B)(iii)) or if these emissions are already accounted for within the emissions of another regulated pollutant (although the State is not precluded from doing so). The program need not collect the \$25 per ton amount if it can provide a demonstration that a lesser amount will adequately support the direct and indirect costs of the program (502(b)(3)(B)(iv)). Conversely, States are free to use different approaches or charge more than \$25 per ton and must do so if additional funds are necessary to cover the costs of the program. In any event, the permitting authority must provide for a periodic accounting of how the collected fees were used to support the program, and how they meet the presumptive minimum described above.

The EPA interprets title V to offer permitting authorities flexibility in setting variable fee amounts for different pollutants or different source categories, as long as the sum of all fees collected is sufficient to meet the reasonable direct and indirect costs required to develop and administer the provisions of title V of the Act, including section 507. The fee amount is to be increased each year according to the Consumer Price Index (CPI) at the time the index is published as defined by section 502(b)(3)(B)(v). In addition, the EPA interprets title V to direct States, at a minimum, to recover costs related to meeting Federal requirements, including the requirements of the applicable State plan that implements the relevant requirements of the Act. Nothing in this section is intended to provide States any additional authority (beyond what is otherwise authorized under State law) to levy fees beyond the amount necessary to offset the program costs of title V.

Section 408(c)(4) of the Act provides that during the years 1995 through 1999, no fee shall be required to be paid under section 502(b)(3) or under section 110(a)(2)(L) with respect to emissions from any unit which is an affected unit during Phase I of the acid rain program. The Agency interprets this provision to mean that EPA may not collect fees from Phase I-affected sources prior to the year 2000, but that States are not precluded from collecting fees from these sources for permitting activities pursuant to other requirements of the Act.

If EPA determines that a State's fee program is not approvable, or that a State is not adequately administering or enforcing an approved fee program, EPA

may collect reasonable fees from permittees. Such fees shall be designed solely to cover EPA's costs of administering the Federal permit program (502(b)(3)(C)(i)). Sources failing to pay a fee assessed by EPA must pay a penalty of 50 percent of the fee amount, plus interest (502(b)(3)(C)(ii)). The EPA must deposit federally-collected fees, penalties, and interest in a special Treasury fund, subject to appropriation, to carry out EPA's permitting activities.

H. Permit/SIP Relationship

The SIP remains the basis for demonstrating and ensuring attainment and maintenance of the national ambient air quality standards (NAAQS). The permit program collects and implements the requirements contained in the SIP as applicable to the particular permittee. Since existing SIPs contain all relevant present and past requirements, proper implementation of the permit program will ensure that all SIP provisions applicable to a particular source be defined, clarified, interpreted (as necessary), and collected into a single document. The applicable requirements would include any recent SIP changes, whether as a result of a State or local SIP revision or of a Federal implementation plan (FIP) action by EPA. Where appropriate, EPA intends to promote the implementation of the permit program through the use of model permits for critical source types. Moreover, EPA proposes a broad interpretation of the shield, which requires that States with areas under a SIP call provide permitted sources a shield from compliance with any new SIP requirements in a manner consistent with how the State will meet any outstanding SIP call.

As previously discussed, title V affords reasonable operational flexibility to subject sources. The relationship between title V permits and SIPs is a key factor in determining the extent to which operational flexibility is available to sources, since each permit, in part, must assure compliance with the applicable implementation plan. EPA recognizes that it will take time to complete the transition from a regulatory system where SIPs are the primary tool for implementing and enforcing the Act, to one where operating permits ultimately assume primary responsibility for implementation and enforcement. Elsewhere in today's proposal, the EPA takes comment on ways to ensure a smooth transition to increasingly general, and thus more flexible, SIPs, combined with more detailed permits

specifying the enforceable operating limits applicable to subject sources.

Permits issued pursuant to title V are not part of the SIP, but they, like SIPs, are federally-enforceable. Where reliance on tighter conditions found in permits is critical to satisfy an applicable requirement of the Act, the SIP demonstration must recognize the new permit limits in context of ensuring attainment and maintenance of the NAAQS and any other interim requirements to make reasonable further progress. At the option of the State, this might involve the periodic incorporation of these limits into the SIP to ensure their permanence. The EPA will allow, to the extent possible, batch submittals and/or expedited processing procedures for incorporation of these limits into the SIP. This will include the use of the SIP processing reforms announced in 54 FR 2214, January 19, 1989.

Today's proposal also solicits comment on ways to accomplish an upgrade of the SIP demonstration (relative to the results of the permit process) without making the SIP's so detailed as to limit future permit changes at affected sources. One concept proposed for comment would allow, as a substitute for having to incorporate even tighter permit requirement into the SIP, a single broad SIP provision. This provision would reflect the aggregate effect of tighter limits achieved in the permit program, but only to the extent necessary to demonstrate attainment and maintenance of the NAAQS or to meet any other requirement related to Reasonable Further Progress.

I. New Source Review/Title V Relationship

Decisions made under the NSR and/or PSD programs (e.g., best available control technology (BACT)) define applicable SIP requirements for the title V source and, if they are not otherwise changed, can be incorporated without further review into the operating permit for the source. The title V program is not intended to interfere in any way with the expeditious processing of new source permits. The permitting authority is required to have reasonable procedures and resources to assign priority to action on permits for new construction or modification (503(c)).

J. Small Businesses

The EPA has given serious consideration in this rulemaking to minimizing any undue impacts on small businesses. Accordingly, except for acid rain sources, EPA is proposing to defer initially the applicability from the

permitting program of all nonmajor sources which would have been otherwise subject to title V provisions. These sources are believed to be disproportionately small businesses. The proposed exception to this deferral is for sources in nonattainment areas, where permitting of nonmajor sources may be deferred only if the permitting authority makes a showing that such action will not adversely affect the State's ability to meet its SIP obligations under the Act. The EPA would continue the permitting deferral for certain nonmajor sources if permitting them is demonstrated by EPA to be impracticable, infeasible, or unnecessarily burdensome in a future rulemaking.

For those small businesses still required to obtain, or those opting to obtain, a permit, and for other appropriate source categories, EPA is promoting the use of general permits where possible. A general permit is a single permitting document which can cover a category or class of many similar sources. Public notice and an opportunity for a public hearing must be provided by the permitting authority when considering issuance of a general permit (504(d)), but not when the individual sources subsequently submit requests for coverage and are evaluated for a permit reflecting the terms of the general permit. The permit issuance process for eligible sources can thus be greatly simplified which substantially reduces the administrative burden on both sources and the permitting authority.

Section 507 requires States to establish a small business stationary source technical and environmental compliance assistance program. The program must be adopted as part of the SIP consistent with sections 110 and 112. The States must submit the proposed program within 2 years after enactment of title V (507(a)). The State must also establish a Compliance Advisory Panel to monitor implementation of the program (507(e)).

The program must contain the following provisions for small business stationary sources:

- (1) Mechanisms for developing information concerning compliance methods and programs to encourage lawful cooperation among such sources.
- (2) Mechanisms to assist such sources with pollution prevention and accidental release detection and prevention.
- (3) A State ombudsman for such sources to aid in implementation of the Act.
- (4) A compliance assistance program to help such sources determine

applicable requirements and receive permits.

(5) Mechanisms to assure that such sources receive notice of their rights under the Act.

(6) Mechanisms to assure that such sources are informed of their obligations under the Act, including referrals to qualified auditors.

(7) Procedures to consider requests from such sources to modify work practice or technological compliance methods, or the milestones for implementing such methods. Such requests would be based on the source's technological and financial capability. All such modifications must comply with the Act's requirements, and Federal regulations may only be modified if the regulation provides for the modification (507(a)(1)-(7)).

The EPA must establish a program for small business stationary sources within 9 months after enactment which must (1) assist the States in developing their programs, (2) issue guidance about alternative control technologies and pollution prevention methods, and (3) in States that fail to adopt a program, implement the requirement to assist such sources in determining applicable requirements and receiving permits (507(b)). The EPA must also have a Small Business Ombudsman to monitor implementation of the program (507(d)). Other oversight procedures are contained in title V to ensure the effectiveness of this SIP-based program.

To qualify for assistance from these programs, a source must meet all the following conditions:

- (1) Be owned or operated by a person employing 100 or fewer individuals.
- (2) Be a small business under the Small Business Act.
- (3) Not be a major stationary source.
- (4) Not emit 50 tons per year or more of any regulated pollutant.
- (5) Emit less than 75 tpy of all regulated pollutants (507(c)(1)).

States may also include a source that is a major stationary source provided that the source does not emit more than 100 tpy of all regulated pollutants combined (507(c)(2)). The EPA or the State may exclude from the program any category of sources that has sufficient technical and financial capabilities to meet the requirements of the Act without the program. The EPA and the State must consult with the Small Business Administration and provide notice and opportunity for comment on such exclusions (507(c)(3)).

The State or EPA may reduce any fee required under the Act for small business stationary sources (507(f)). When developing regulations or control technique guidelines (CTG's) which

require CEMS, EPA must consider the appropriateness of requiring CEMS at such sources. This provision does not apply to CEMS under the acid rain provisions of title IV (507(g)). The EPA must also consider the size, type, and technical capabilities of such sources when developing CTG's (507(h)).

K. Relationship with Section 112 (Air Toxics)

The operating permit program will implement existing section 112 standards for subject sources of hazardous air pollutants, as well as future standards to be promulgated under section 112 which describe requirements for the use of MACT, generally available control technology (GACT), and any technology used to reduce unreasonable residual risk. As noted earlier, a major source under section 112 is defined as any stationary source (or group of stationary sources) located in a contiguous area and under common control which has the potential to emit, after controls, 10 tpy or more of any hazardous air pollutant, 25 tpy or more of any combination of these pollutants, or a lesser quantity of a given pollutant if the Administrator so specifies.

Section 112(l) of the Act outlines a program for State implementation of section 112. The EPA proposes that the procedural requirements in section 112(l) to review and approve/disapprove State programs will be met by the promulgation of part 70, specifically as described in section V.E. of the preamble.

The State permit program submittal is required to contain a legal opinion affirming the adequacy of existing legal authority to implement and enforce certain section 112 provisions. Authority is needed to accept delegation of authority to implement and enforce MACT standards; to develop and enforce case-by-case determinations of MACT for new, reconstructed, or modified sources where no applicable emissions limitations have been yet established (112(g)); and to develop and enforce case-by-case determinations of MACT where EPA fails to issue a standard for a major source category or subcategory within 18 months of the scheduled promulgation date (112(j)).

The operating permit program will also be the principal long-term mechanism for implementing alternative emissions limitations for sources which demonstrate that they have achieved reductions of 90 percent or more in emissions of hazardous air pollutants, or reductions of 95 percent or more in emissions of particulate hazardous

pollutants. Existing sources which make sufficient early reductions will receive a 6-year extension from the compliance date for meeting the otherwise applicable standard (2(i)(5)).

L. Relationship With Title IV (Acid Rain)

Title IV mandates a two-phased acid rain control program which will be implemented, as in the case of other Act requirements, through title V operating permits. The requirements of part 70 will apply to the permitting of affected sources under the acid rain program, except as modified in 40 CFR parts 72 through 78, pursuant to title IV (506(b)). Compliance with the acid rain program requirements in parts 72 through 78 will not exempt or exclude the owner or operator of any source subject to those requirements from compliance with any other applicable requirements of the Act (403(f)).

Title IV sets forth certain permitting requirements that supplement the title V requirements addressed by today's proposal. Places where the acid rain permitting program may differ from the title V operating permit program have been highlighted, and some specific statutory requirements under title IV are included in this proposal. Most specific requirements of the acid rain permit program will be established in a separate rulemaking, with final rule promulgation 18 months after enactment. It is contemplated that the acid rain permit program rules will be promulgated at 40 CFR part 72. Other requirements for that program will be promulgated at parts 73 through 78 of 40 CFR. References to those sections are used in this rulemaking where appropriate.

Acid rain-specific permit content requirements must be included in permit applications, compliance plans, and operating permits under both phases of the acid rain program. The permitting process will be different for Phase I and Phase II. Section 408 provides that Phase I of the acid rain program (1995 through the end of 1999) will be implemented entirely through operating permits issued by the EPA. Phase II (beginning in 2000) will be implemented by operating permits issued by the States with federally-approved permit programs, or by the EPA in the event of State defaults. Thus, Phase II permitting will be in accordance with the process established by the rules proposed today, as supplemented by the acid rain-specific content regulations in part 72.

The acid rain permit regulations are anticipated to include a description of the relationship of the acid rain program to other programs incorporated in the

permits, necessary definitions, applicability requirements, and necessary permit elements not included in the rule proposed here. These will include: (1) Acid rain-specific requirements for permits and compliance planning, including requirements for affected sources relying on one or more alternative compliance methods authorized by the statute (e.g., extensions, substitutions, reduced utilization, energy conservation or renewable energy, repowering, and options); (2) compliance certification and reporting requirements; (3) requirements for designated representatives for affected sources; and (4) excess emission offset planning and fee requirements.

Whether permits are issued by the State or EPA, acid rain permit application forms must be used, including a provision concerning the binding effect of permit applications, which must (at a minimum) state that the acid rain portion of the permit application and proposed compliance plan, including amendments thereto, submitted for an affected source under the acid rain program shall be binding on the owners and operators, and on the designated representative for the source, and shall be enforceable as a permit for purposes of the acid rain program until a permit is issued by the permitting authority.

All acid rain permits issued to affected sources must prohibit: (1) Annual emissions by affected units in excess of the applicable emissions limitation for NO_x; (2) annual emissions of SO₂ by affected units in excess of the number of allowances to emit SO₂ held by the owner or operator, or the designated representative, for use in that year by each affected unit; (3) any person from holding, using, or transferring any acid rain allowance, except in accordance with regulations at part 73; (4) the use of any allowance prior to the calendar year for which it was allocated; and (5) circumvention of any other provision of parts 72 through 78, or of the permit (403 (f), (g)). Standard terms must similarly be included in permits for acid rain affected sources in order to ensure a nationally consistent program. In order to facilitate such standardization, EPA plans to develop forms at the time of the acid rain rulemaking and to develop support for computer generated permitting.

When developing permit revision procedures, States should be aware that the statute forbids requiring permit revisions as a result of allowance transactions. In accordance with title IV, all acid rain allowance allocations and

transfers will, upon being recorded by the Administrator in accordance with section 403 of the Act and part 72, be deemed a part of each unit's acid rain permit requirements, without need for any further permit review and revision. Nothing in a permit shall be construed as affecting allowances. In addition, no permit revision shall be required for increases in emissions that are authorized by allowances held for a unit pursuant to the acid rain program, provided that the emissions increases authorized under the acid rain program do not excuse noncompliance with any other emissions limitation, standard, or requirement under the Act, including under title I for the protection of ambient air quality standards, and that the acid rain requirements of the permit shall be governed by and consistent with the regulations at parts 72 through 78.

No permit or revision to it may be issued that is inconsistent with the requirements of the acid rain program, requirements of the Act, or requirements of parts 72 through 78. Examples of safeguards that will be developed under the part 72 rulemaking which should limit permit revisions include: (1) Permit revisions shall be effective only to the extent they are consistent with parts 72 through 78; and (2) limits on the use of the amendment authority, e.g., changes in the designated representative for purposes of a source's acid rain program requirement, shall be supported by a certification of redesignation in accordance with part 72.

Rules for Federal acid rain permitting during Phase I, and in the event of State defaults during Phase II, will be published at 40 CFR part 72. Acid rain permit content requirements, which must be included in permits issued by States with approved programs, will be promulgated at that time. Public comment is invited at this time regarding the impact of this general permit program rulemaking on the acid rain permit program. Public comment in response to the acid rain rulemaking proposal will, however, only be accepted with regard to the provisions proposed at that time. Comments will not be considered at that time reopening matters addressed by this rulemaking.

IV. Detailed Discussion of the Key Aspects of the Proposed Regulations

This portion of the preamble provides more detail on selected provisions of the proposed regulations. Issues are identified and EPA's proposed positions are discussed. Discussion is also included on the implications of the

regulations and on the way implementation is expected to occur.

A. Section 70.1—Statement of Program Goals

The purpose, benefits, and certain concepts of the regulatory requirements in part 70 are introduced in this section of the regulations. Detailed discussion of some of these concepts appear subsequently in this preamble. The key concepts include: (1) The permitting program generally codifies existing regulatory requirements and does not impose new control requirements; (2) the SIP will continue to be the mechanism for demonstrating attainment and maintenance of the NAAQS; (3) the permits will assure compliance by the source with an applicable requirement of the Act; (4) States may implement a more extensive program consistent with the Act; and (5) EPA must implement a Federal permit program in the event a State fails to satisfactorily implement its program. This program, consequently, may be more limited in scope than the State program.

B. Section 70.2—Definitions

Many definitions of terms in other parts of the Act or EPA regulations are utilized in part 70. In addition, a number of new terms introduced in title V and many terms created in conjunction with developing part 70 are defined by this section. These new definitions include terms necessary to communicate effectively the new regulatory requirements, including "complete application," "part 70 permit," "part 70 source," "permitting authority," and "renewal."

C. Section 70.3—Applicability

(1) Section 70.3(a)—Sources Subject to Permitting

This section describes program coverage and source applicability by defining "part 70 sources." Operating permit programs must cover the types of stationary sources (except where EPA has exempted in whole or in part a source category, subject to certain limitations) previously described in detail (III.A.), which includes major sources. Section 70.3(a) covers the sources included in section 502(a).²

² EPA notes that clean-up activities at hazardous waste Superfund sites will not be required to obtain title V permits, just as they currently need not receive CAA new source review permits. The Agency has previously decided that under the Comprehensive Environmental Response, Compensation, and Liability Act, such permitting is not appropriate. See the National Oil and Hazardous Substances Pollution Contingency Plan, 55 FR 8766-57 (March 8, 1990), and 40 CFR 300.5 (definitions of "applicable requirements" and

Source and Major Source: The EPA wishes to clarify how the definitions of "stationary source" and "major source" will be applied under the operating permit programs and to explain how these concepts will relate to the definitions of stationary source currently in effect in other programs under the Act.

Stationary Source: The EPA has patterned its proposed definition of "stationary source" for the permits program on the definition for "stationary source" contained in title I. The Agency proposes in § 70.2(d) that "stationary source" means any building, structure, facility, or installation that emits or may emit any air pollutant.

Major Source: The EPA is taking comment on how to interpret the section 501(2) definition of "major source." Section 501(2) provides, in relevant part, that "the term 'major source' means any stationary source (or any group of stationary sources located within a contiguous area and under common control)" that would be a major source under sections 112 or 302, or part D of title I of the Act. As discussed below, the Agency proposes that "stationary sources" are to be grouped to determine if a major source exists on the basis of the same industrial grouping, or "major group" in the Standard Industrial Classification Manual (SIC code). Accordingly, EPA will require all commonly owned or controlled pollutant emitting activities on contiguous or adjacent properties to obtain an operating permit if they are within the same SIC major group, and assuming the aggregated activities emit enough pollutants to trigger the applicable emissions thresholds provided in the Act.

The EPA believes that aggregating sources by SIC code at the source site to determine whether a source would be major is the approach intended by Congress. The definitions of major sources in part D of title I have language similar to the title V language. For example, section 182(c) states that, for any serious ozone nonattainment area, "the terms 'major source' and 'major stationary source' include (in addition to the sources described in section 302) any stationary source or group of sources located within a contiguous area and under common control that emits, or has the potential to emit, at least 50 tons

relevant and appropriate requirements). Similarly, facilities that are required to obtain permits for other reasons need not include CERCLA remediation-related information on emissions in their applications; such facilities must, however, include such information on those emissions as is otherwise required, because they are subject to applicable requirements under the Clean Air Act.

per year of volatile organic compounds." Although that definition does not explain whether equipment that does not emit VOC's would be excluded from the source if the remaining equipment emitted more than 50 tpy, the House Committee Report explaining the provision sheds light on that issue and on the title V definition. Specifically, the Report states the following:

The definition of "major source" here and elsewhere in the bill uses the term "group of sources located within a contiguous area and under common control." The Committee understands this to mean a group of sources with a common industrial grouping, i.e., the same two-digit SIC code. It is the approach followed today by EPA as a result of the Alabama Power litigation. It avoids the possibility that dissimilar sources, like a power plant and an adjacent coal mine, will be considered as the same "source" because of common ownership.

The legislative history reference therefore suggests that aggregation by SIC code should be done in a manner consistent with established NSR procedures. Accordingly, any equipment used to support the main activity at a site would also be considered as part of the same major source regardless of the 2-digit SIC code for that equipment. For example, an automobile manufacturing plant may consist of a foundry (SIC group 33), a power plant (SIC group 49), and an assembly plant (SIC group 37). Assume that the equipment is situated at the same site, under common ownership, and that the foundry and power plant are used solely to supply the assembly plant. In this example, all three activities would be considered to be part of one major source. However, if less than 50 percent of the output of the foundry was dedicated to the mentioned auto assembly plant, it would be considered as a separate source. If the power plant supported both the foundry and the assembly plant, it would be considered part of the source that consumes the largest percentage of the power generated.

The EPA solicits comment on whether or not to combine sources according to 2-digit SIC code when determining if those stationary sources constitute a major source under the title V permit program.

The Amendments require all major stationary sources to be permitted, even if the Act does not impose other substantive requirements on the facility. For example, in some States there are existing major stationary sources in attainment areas for which there are no applicable emission limits in a SIP. Title

V requires such major sources to obtain a permit although, under appropriate circumstances, States may choose to issue general permits to reduce the paperwork burden.

Section 112 requires that EPA publish a list of major and area source categories emitting one or more of the listed hazardous air pollutants before EPA sets standards that may apply to their toxic emissions. Title V requires major sources to obtain a permit, even if a MACT standard has not yet been promulgated and the source is otherwise unregulated under the Act. Even so, the permitting process for many of these sources will be meaningful. Those undergoing construction, modification, or reconstruction will be subject to new substantive controls pursuant to section 112(g). It is unlikely that major sources to which section 112 would be applicable would not be regulated elsewhere under the Act. That is, many of the pollutants regulated under section 112 are also VOC's or particulate matter and are regulated by SIP regulations designed to implement the ozone or PM-10 NAAQS. As discussed more fully in section V.E., title V permits will also be the vehicle that a permitting authority uses to codify emission limits and monitoring requirements proposed by sources to meet the early reduction requirement under section 112(i)(5), which defers application of MACT.

The EPA also solicits comment on whether the Agency should exempt from permitting requirements those sources that are "major" by virtue of the quantity of their emissions of particular pollutants, but whose emissions are not in any way actually regulated by a standard or other requirement under the Act. Arguably, issuing permits for such sources would serve no useful purpose under the Act.

Potential Emissions: In determining whether the amount of emissions from a stationary source will qualify the source as major and subject to part 70, EPA will rely on the concept of "potential to emit" (302(j), relevant sections of part D of title I, and 112(a)(1)). In so doing, EPA will determine potential emissions using the maximum capacity of a source to emit a pollutant, taking into account any federally-enforceable physical or operational limitation on that capacity (including any air pollution control equipment).

Including the federally-enforceable limitations on a source in the definition of potential emissions appears to create a circular definition problem. A source which enforceably restricts its emissions below the threshold for major stationary sources may be able to exempt itself from the permitting requirement,

assuming no other provision of the Act captures that source in the program. However, the source seeks to exempt itself from one of the very programs capable of making enforceable the limits that create the exemption, but must first meet all substantive procedures and requirements in the process.

States may address this question using several techniques. They may decide not to include such operational limits in the definition of major stationary source for their operating permitting program, thereby assuring that such sources are permitted. A program might be able to permit such sources using general permits designed to impose capacity limits on a category of sources generically. States may then issue such sources State operating permits, without subjecting them to the federally-approved permit program, and submit those State permits as SIP revisions to make the limits federally enforceable. Alternatively, States may choose to submit their State operating permit programs to the extent that they focus on smaller sources to EPA for approval as a SIP revision. To be approved by EPA, a program must meet the requirements set forth in the requirements EPA articulated in its approval of the definition of "Federal enforceability" in the NSR program (see 54 FR 27274 (June 28, 1989)). This would then create a framework under which federally-enforceable permits could be subsequently issued by the States to limit the potential to emit of borderline sources without a need for case-by-case EPA approval.

The EPA also takes comment on the possibility of allowing such sources the option to submit to the appropriate permitting authority (with a copy to the EPA Regional Office) a commitment containing specific physical or operational conditions that would restrict the source's potential emissions to a level below the applicability thresholds stated in § 70.3(a). It must be signed by a responsible officer of the source with authority to make legally-binding commitments for the source. A commitment of this type must ensure that participating sources conduct adequate monitoring and submit monthly reports describing pollutant emissions to the permitting authority. The permitting authority and EPA could then continually verify the source's compliance with its commitment, and the source would not be required to obtain a part 70 permit.

The commitment must include an agreement that the source would submit a title V permit application within a short time (e.g., 30 days) after it determines that its emissions exceed the

appropriate title V applicability threshold for the previous 12-month period. Failure by a source to meet its agreement and submit a title V permit application would make the source subject to appropriate enforcement penalties.

In addition, comment is solicited on: (1) Applicable methods for ensuring the Federal enforceability of such commitments, (2) ways of providing adequate public review and comment on these commitments, and (3) ways that State programs can cover the costs of administering such a program.

(2) Section 70.3(b)—Source Category Exemptions

Section 502(a) authorizes EPA, consistent with applicable provisions of the Act, to exempt one or more source categories, in whole or in part, from the requirement to have a permit. The EPA must determine that compliance with the permitting requirements is infeasible, impracticable, or unnecessarily burdensome on such source categories. The EPA may not exempt any major source from the permit requirements.

The EPA proposes to use the authority available under section 502(a) to defer initially the applicability of the title V program to all sources that would otherwise be subject but are not major or affected sources under the Act. The EPA finds that without this deferral, compliance by all these nonmajor sources with the permitting requirements would be "impracticable" and "infeasible" within the meaning of section 502(a). This finding is grounded in EPA's judgment that the initial years of the program will see EPA and the States significantly burdened by thousands of permit applications for major sources. This is so in part because the Act greatly broadens the definition of major source for title V purposes to include relatively small sources for the nonattainment and the toxics provisions. Nationwide, EPA estimates that over 34,000 sources are included in the definition of major source.

Dealing with these applications, at a time when the regulations are new and untried, is likely to tax Federal and State resources up to or beyond their limits. Limited numbers of qualified staff will be available, and in heavy demand by sources and permitting authorities alike. State and local agencies will be challenged to expand rapidly while maintaining effective management of programs and personnel. This initial wave of permitting will be difficult for permitting authorities. Creating the initial permits will require far more

attention than the subsequent processing in later years of permit renewals and modifications, which will often involve changes to only some aspects of the initial permits, or no changes at all.

Including the thousands of nonmajor sources covered by section 502(a) would greatly increase the workload on EPA and the State, with relatively minor air quality benefits, and at a time when they will be strained beyond capacity. This conclusion is based on EPA's judgment and experience in implementing new programs, most of which have not approached the scale of the permit program. The EPA's understanding of the number of nonmajor sources is preliminary, since the Agency has had little time between enactment and this proposal to study the coverage of the program in detail. Although EPA believes the current showing (as discussed in more detail below) amply supports this proposal (especially in light of the observation from *Alabama Power* that a deferral requires far less justification than an outright exemption, 636 F.2d at 360, n. 86), EPA requests any more detailed information and comments on its conclusion that including all sources in the permitting process during the initial glut of application processing would be impracticable and infeasible.

For several reasons, initially excluding minor sources poses few risks to air quality progress. Nonmajor sources emit less than major sources. Concentrating resources on major sources during the first phase of the program will make efficient use of those resources. Not only will the sources deferred from the program not be significant contributors to pollution impacts, many of them will still be covered by Federal regulations under the Act. Nonmajor sources will be subject to NSPS or existing national emission standards for hazardous air pollutants (NESHAP) regulations that generally already contain many of the same monitoring, recordkeeping, and reporting requirements that would apply to major sources and represent one of the major benefits of the permit program. Therefore, permitting these sources is less urgent than permitting major SIP sources. As stated above, a State with an ozone SIP that relies on emission reductions from nonmajor sources will have to make a special showing to defer such sources from the program. Finally, it would be especially burdensome on small businesses and small governments to force them through this program during the time when the States and EPA are gaining experience

in implementing new programs under title V. Small businesses and small governments do not have the same legal and technical resources that are sometimes necessary to handle successfully a new program. Thus, EPA finds that permitting such nonmajor sources during the first 5 years of the program would be unnecessarily burdensome on those sources and impracticable to the States.

The EPA further proposes to end automatically the exemption for these nonmajor sources on or before a date 5 years from the effective date of the permit program in the State (approval of either a part 70 or part 71 program). In deciding which of these categories should continue to be exempted, the EPA will consider the relative administrative burden associated with reviewing the prospective category and whether and to what extent this burden would be acceptable. In determining acceptability, EPA will consider the possibility of using general permits or other alternatives to permitting each source individually. The EPA solicits comment and information concerning which source categories might be especially appropriate for permanent exemptions (notwithstanding the possible use of general permits), such as asbestos demolition and renovation operations under the NESHAP program and woodstoves under the NSPS program. The Agency also asks for comment on any other criteria that should be used to judge the effect of permanently deferring nonmajor sources, including the burden on sources and permitting authorities, and the aggregate effect on air quality of any permanent exemption.

Today's proposal to defer the initial applicability of nonmajor sources is limited in two important respects. First, the initial deferral does not automatically apply to sources which otherwise qualify as a subject source based on emissions of a pollutant for which its area of location is classified as nonattainment. Typically, this will involve ozone nonattainment areas. A permitting authority may exempt nonmajor VOC and NO_x sources from its program in those areas only if the authority submits to EPA an inventory of such sources and demonstrates that the State can assure compliance with its nonattainment area SIP obligations without permitting such sources during the first 5 years of the program. The EPA must approve the deferral for such sources. The EPA also solicits comment on the appropriateness of limiting the scope of the nonattainment exemption demonstration to only the larger of the

nonmajor sources (i.e., no demonstration is needed for deferred applicability if nonmajor sources are below a certain size) otherwise subject to title V or only those that would not qualify for general permits.

The deferred applicability of certain sources would not preclude a source from requesting and receiving a part 70 permit. The EPA proposes that States allow into the operating permit program sources wanting to participate. Some companies have business reasons to seek an operating permit. For example, a lender may wish to determine that air emissions from a facility are permitted under the law. As a result, there may be sources that a permitting authority determines does not need a permit for air pollution control purposes, but which have independent business reasons to seek operating permits. In such cases, the Agency also strongly urges the use of general permits (as discussed below) to minimize any undue burden.

Finally, the Administrator reserves the right to restrict the presumption for the deferred applicability of nonmajor sources for any sources subject to a standard under section 112 which is promulgated after the final date of these regulations. The EPA would decide during the rulemaking process for the new section 112 standard how the title V program would apply to those affected sources which are nonmajor.

In connection with the deferral of nonmajor sources from the program for the first 5 years, EPA is soliciting comment on the waiver of EPA authority to review the permits for such sources if States choose to include them in the program. Some States may decide to include some or all nonmajor sources in their permit programs despite EPA's deferral. Section 506(a) authorizes States to adopt additional permitting requirements not inconsistent with the Act. Section 505(d) authorizes EPA to waive the requirement that the permitting authority notify EPA or neighboring States of each permit for nonmajor sources. The EPA could use this authority to reduce the administrative burden on the permitting authority, EPA, and the neighboring States. The EPA invites comments on the advantages and disadvantages of this approach. The proposed regulations do not provide for such a waiver, under the assumption that most States will take advantage of the deferral for nonmajor sources.

In no instance would affected sources under title IV of the Act be eligible for an exemption from the permitting requirements since section 408(a) provides that permits shall be the

vehicle for implementation of the acid rain requirements of the Act. The Agency anticipates that most affected sources under the acid rain program, with the possible exception of voluntary opt-ins or transfer sources, would be considered "major" under some other title of the Act and would not be eligible for exemption from the operating permits program.

(3) Section 70.3(c)—Emissions Units and Part 70 Sources

This section requires that State programs assure in the permitting process that all emissions units at a major source will comply with all applicable Act requirements for their emissions of all pollutants regulated under the Act (504(a)). Including all these emission units in the permit does not mean that permits must impose emission standards or limits on all such units. The permit must impose any "applicable requirements" that are federally enforceable and apply to those emission units. The permit application must identify all units in the major source, however, and the permitting authority's fee program should account for the emissions of regulated pollutants from all such units.

Accordingly, all the activities emitting regulated pollutants at the major source must be addressed in the application for a permit, even though only one emissions unit or subset of units has triggered the title V permitting requirement. Conversely, the title V permit need not contain limits for emission units not otherwise regulated under the Act (e.g., not regulated by the SIP and/or under sections 111–112).

Some States prefer to permit by emissions unit, especially at large sources with many emissions units. As long as the collection of individual emissions unit permits assure that all applicable requirements would be met which would be required under a permit for the whole source, and the State permits the entire source according to the Act's schedule, the State may permit each unit individually, or in groups within a source. Where feasible, the entire facility should be permitted at one time. States are encouraged to permit at least all logical or similar emissions units at the same time.

The determination of whether a source, or group of contiguous, commonly-controlled sources within the same 2-digit SIC code as described earlier, is a major source requiring a permit depends on the magnitude of emissions from the source or set of sources. If a source or group of sources has several emission units which the State does not regulate and

subsequently permit, the State's application process must identify them if the regulated and nonregulated emissions of applicable pollutants together would make the source major, and the State's fee schedule must account for the cost involved with surveying the source's nonregulated emissions of regulated pollutants. One way to implement such a program may be to issue each source a permit with sourcewide information and general requirements, and then incorporate more detailed individual emissions unit permits that are issued to cover those units specifically regulated under the Act. If a nonmajor source is required to get a permit solely because it is regulated under an NSPS or a NESHAP, the permit must include only those units covered by the NSPS or NESHAP. For example, consider a saw mill containing an oil-fired boiler subject to an NSPS, an older wood-fired boiler, and various wood-working equipment. If emissions for the source as a whole are not large enough to meet the threshold for a major source, the permit must include only the NSPS boiler.

This section also clarifies which pollutants must be included in the permits of sources subject to title V. As under existing EPA policy developed in the NSR program (45 FR 52676, August 7, 1980), if one or more regulated pollutants emitted by a source triggers the requirement to have an operating permit, the permit must account for all the pollutants regulated under the Act emitted from that source, even if those pollutants do not themselves meet the applicable "major" threshold under the Act. This is appropriate since part 70 permits must assure compliance by the source with each applicable standard, regulation, or requirement under the Act and not just the ones for which the source has major emissions (504(a)). For example, a VOC source in a severe ozone nonattainment area that has the potential to emit 30 tpy VOC is a major stationary source under part D of title I and required to obtain a permit. If that source also has a small process boiler which has the potential to emit only 25 tpy of SO₂ in an SO₂ attainment area, the boiler must also be included in the permit, at least for the purposes of emissions information and fee calculation, even in the unlikely event the SIP imposes no limits on that boiler's operation.

The EPA also wishes to clarify that NO_x emissions, as well as nitrogen dioxide (NO₂) emissions, are included under the definition of "regulated pollutant." The NSPS contains restrictions on NO_x emissions (40 CFR 60.44). The acid rain program also

regulates NO_x. Therefore, NO_x emissions are included in the definition of "regulated pollutant" under section 502(b)(3)(B)(ii) (40 CFR 50.11) and in determinations of a source's potential to emit, and fee calculations must account for all NO_x emissions.

(4) Section 70.3(d)—Fugitive Emissions

This section specifies that, once a source is found to be subject to the title V permitting requirements, fugitive emissions at a subject source are to be included in the total emissions of a source for all purposes of permitting, including collection of fees.

The EPA is also proposing to consider fugitive emissions in determining if a source would be major with respect to section 302 for only those source categories that have previously been subjected to the rulemaking required in section 302(j) (45 FR 52676 (August 7, 1980)).

D. Section 70.4—State Program Submittals and Transition

(1) Section 70.4(a)—Date for Submittal

This section of the regulations requires States to submit their operating permit programs to EPA for approval within 3 years of enactment (i.e., by November 14, 1993) (502(d)(1)). This deadline is a fixed date and does not depend on the date EPA promulgates the regulations in this proposal. This section of the regulations also requires a State to revise the existing, approved operating permit program and submit it to EPA for approval within 1 year of any revision to the part 70 permit program requirements that EPA determines would necessitate such a change. Permitting programs that would be implemented within a State, such as by local agencies, would have to be designated by the Governor and submitted within the 3 years after enactment.

(2) Section 70.4(b)—Elements of the Initial Program Submission

There are certain minimum critical elements that need to be included in an acceptable program when it is submitted to EPA for approval. The submittal must include the State-adopted regulations establishing the permit program and the procedures the permitting authority will use to apply the permitting regulatory requirements. The EPA also solicits comment on whether the State statutes that authorize the regulations and provide for judicial review of final permit decisions should also be part of the submittal.

The submittal must include a legal opinion that the permitting authority has

**STATE OF NEW MEXICO
BEFORE THE ENVIRONMENTAL IMPROVEMENT BOARD**

IN THE MATTER OF:

PROPOSED NEW REGULATION

20.2.50 Oil and Gas Sector — Ozone Precursor Pollutants

No. EIB 21-27(R)

**PRE-FILED REBUTTAL TESTIMONY OF MR. MARK DAVIS,
A WITNESS ON BEHALF OF THE GAS COMPRESSOR ASSOCIATION**

I. Introduction to My Testimony

My name is Mark Davis. I am testifying as a technical witness on behalf of The Gas Compressor Association (GCA) in this proceeding. My testimony supports the GCA's proposed amendments to the New Mexico Environment Department's (NMED's or the Department's) proposed regulation of pneumatic controllers as set out as 20.2.50.122 NMAC in the Department's proposed rule 20.2.50 NMAC (Proposed Rule). The GCA's proposed amendments to the parts of the Proposed Rule that are the subject of my testimony are set forth in redline in GCA Exhibit 34. The GCA initially proposed changes to the pneumatic controller requirements of the Proposed Rule in GCA Exhibit 3. Based on its review of the filings of other parties, the GCA has revised its suggested changes to the pneumatic controller requirements to incorporate monitoring that will ensure that intermittent pneumatic controllers in New Mexico are operating as-designed. GCA Exhibit 34 includes those revisions and replaces the previously filed GCA Exhibit 3.

This testimony begins with an overview of my credentials. I will then discuss how the compression services provided by J-W Power Company and other members of the GCA use pneumatic controllers. I will discuss my concerns regarding the assumptions that NMED and its consultant made in developing the pneumatic controller requirements in the Proposed Rule – in particular, regarding the ability to easily (and cost-effectively) convert remote sites that do not

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19 have access to the power grid to solar-powered, non-emitting controllers. My testimony is offered
20 in support of the GCA's position that properly operating intermittent pneumatic controllers are an
21 effective tool for limiting emissions from the oil and gas industry, particularly at those sites that
22 do not have access to electrical grid power. For that reason, I believe that the NMED should treat
23 intermittent controllers like non-emitting controllers for purposes of the controller replacement
24 program of Proposed 20.2.50.122.B(3) NMAC or, in the alternative, exempt sites that do not have
25 access to electrical grid power from the requirement to convert to non-emitting controllers.

26 **II. Statement of My Qualifications and Relevant Experience**

27 My resume is attached as GCA Exhibit 33. I received my Bachelor of Science degree in
28 mechanical engineering from the LeTourneau University in 2005. Since 2004, I have worked in
29 the natural gas compression industry in engineering and operations roles, with additional
30 responsibilities for environmental compliance.

31 I began my career as an engineering intern with J-W Power Company (J-W Power),
32 supporting the design of natural gas compressor packages. In 2005, I became a Technical Services
33 Engineer, providing field technical support for the natural gas compressor packages that J-W
34 Power sells and leases to its customers in the oil and gas exploration and production segment. In
35 2016, I was named Technical Services Manager for J-W Power, my current position. I am
36 responsible for managing the engineering and field service group that provides support for
37 customers who employ gas compressor packages supplied by J-W Power. I am also responsible
38 for ensuring that the compressor packages are designed and can be operated in a manner that
39 ensures compliance with applicable environmental requirements.

40 J-W Power is a member of the GCA. The GCA is an association whose members include
41 the owners and operators of the engine-driven natural gas compressors that are utilized to provide

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compression services to oil and gas producers and to midstream companies in the oil and gas industry in New Mexico and throughout the United States. I served as chairman of the GCA's environmental committee from 2014-2020. The GCA members serve a vital function in the New Mexico oil and gas industry, and the GCA members' operations in New Mexico are affected by many parts of the Proposed Rule, including the regulation of pneumatic controllers.

III. The Use of Pneumatic Controllers in Gas Compressor Packages

The GCA member companies supply natural gas compressor packages that use pneumatic controllers. Pneumatic controllers are primarily used on compressor packages as liquid level devices: the controllers are used to measure liquid level as part of the compression stage, and in some cases as part of the compressor package's fuel system.

The removal of liquids is an important part of the gas compression process. Compressor packages employ separators (also referred to as scrubbers) that separate liquids from the gases during the compression stage. Liquids must be removed from the gas stream as part of the compression stage. Those liquids are collected in a vessel, and when the liquid level in that vessel reaches a certain point (before the vessel is full), a pneumatic controller will open a valve that allows the vessel to empty into a separate, larger tank. Compressor packages may have up to three stages of compression, and will employ a separator and associated liquids vessel with pneumatic controller for each stage of compression. The operation of those pneumatic controllers and dump valves is vital for the function of a compressor, because liquids cannot be compressed, and the failure to remove liquids from the process will interfere with compression and cause the compression equipment to malfunction.

Compressor packages may also use pneumatic controllers as part of their fuel systems. Some compressor packages do not have sweet, dry natural gas available as fuel, and the fuel stream

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contains natural gas liquids. In those circumstances, the compressor package will employ a filter that removes the liquids from the fuel stream. Those liquids will flow into a vessel that, like the liquid vessels that operate during the compression stage, must be emptied before the vessel is full using a pneumatic controller. In these circumstances, operation of the pneumatic controller is vital to ensure the quality of the fuel supply for the compressor engines.

J-W Power's technical services group provides support to a fleet of natural gas compressor packages, ranging in size from 18 to 1775 HP. As manager, I oversee field engineers, senior compression specialists, technical training, and air environmental compliance. We work closely with our design engineering and manufacturing group to specify and build packages for use in the lease fleet and for sale. I am familiar with the selection, proper use, and troubleshooting of pneumatic controllers, as well as the impact of federal and state environmental regulations affecting these devices.

J-W Power's compressor packages are representative of those used by other GCA compression service companies, and several of the pneumatic device suppliers are also represented at the GCA. Pneumatic controllers are an important part of the compression service industry's operations, and are frequently utilized at remote, unmanned compressor packages that are leased to end users, typically in the upstream and midstream markets. It is imperative to our customers that we provide equipment that will operate with up to 98% runtime on a continuous 24/7/365 basis. Properly operating pneumatic controllers are key to the reliable operation of compressor packages – and the reliable operation of compressor packages is key to the movement of natural gas across New Mexico.

IV. Non-Emitting Controllers are Only Economically Feasible at Sites that have Commercial Line Electric Power

NMED has proposed the following requirements for natural gas-driven pneumatic controllers: (1) new controllers must have an emission rate of zero; (2) existing emission controllers with access to commercial line electrical power must have an emission rate of zero; (3) for all existing pneumatic controllers, an owner and operator must reach benchmarks (expressed as a percentage of the owner/operators pneumatic controllers that are non-emitting controllers) over a series of incremental steps, with the final percentage of non-emitting controllers dependent on both the type of site and the historical percentage of non-emitting controllers. Proposed 20.2.50.122.B NMAC.

NMED's Exhibit 32, the Direct Testimony of Elizabeth Bisbey-Kuehn and Brian Palmer, explains the basis for the proposed pneumatic controller requirements. While J-W Power and other GCA members do not control the siting of the compression packages that they lease to their customers, I know that, in many cases, the compressor packages are sited in areas that do not have commercial line electrical power. For that reason, I was particularly interested in the NMED's explanation for why non-emitting controllers are feasible at those remote sites. On page 136 of Exhibit 32, the witnesses state, "[f]or sites without electric power onsite, available information indicates that the least expensive option for retrofitting pneumatic devices onsite is to install solar electric controller systems or solar-powered pumps." NMED Ex. 32 at p. 136. NMED's Exhibit 95, *Pneumatics Reductions and Costs VOC 5-27-2021*, is a spreadsheet that contains the NMED's analysis of the cost associated with the cost of converting to non-emitting controllers at sites that do not have electricity.

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I believe that the NMED has underestimated, if not dismissed altogether, the technical and operational challenges associated with installing solar electric controller systems at remote sites. The effective and reliable use of solar electric controller systems must overcome limited daily sunlight conditions requiring significant solar arrays, the potential for extended weather events, obstructions such as dirt or snow that reduce efficiency, a large installation footprint compared to non-solar controllers, and high wear and tear due to site conditions that will likely affect the useful life of the solar-electric system. Moreover, based on the review of the testimony and associated report filed by witness Adam Meyer of Valor EPC for the New Mexico Oil and Gas Association (NMOGA), I believe that the NMED has significantly underestimated the costs of converting a site to solar electric controllers. *See* Direct Testimony of Adam Meyer, NMOGA Notice of Intent (NOI), Appendix A2.

I agree that converting pneumatic controllers from using natural gas to compressed air is the best solution for a zero-bleed controller. The challenge is that utility power (or some other reliable power supply) is necessary to operate the air compressor. Although solar powered air compressor systems are available and have been implemented on a relatively small scale (primarily outside the United States), they are not cost-effective and still require some type of dependable backup in order to replace the 24/7/365 availability of natural gas pneumatic controllers. Some solar-powered compressor systems include a bank of batteries for backup, while others are paired with diesel generators – both attempting to solve the challenge that a solar system is not 100% reliable, but power to the controllers cannot be interrupted. Loss of runtime due to an inoperable pump can interfere with compression and lead to cascading effects across the gas gathering system.

NMED's analysis of the cost-effectiveness of converting sites to solar electric controller systems uses inputs that, in my opinion, result in a VOC emissions reduction cost-per-ton figure

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that is far lower than what would actually be observed. First, I agree with NMOGA's witness Adam Meyer that the emission factor for intermittent pneumatic controllers that the NMED has used for purposes of its cost-per-ton analysis overstates the emissions from intermittent pneumatic controllers. As Mr. Meyer states, rather than the 13.5 standard cubic feet per hour (scf/hr) emission rate for intermittent controllers assumed by NMED, the latest study data supports the use of a 3.5 scf/hr emission rate. See NMOGA NOI, Appendix A2, *Valor EPC Study: NMAC 20.2.50.122, Pneumatic Controllers* (7/28/2021) at p.1 and *Valor EPC Study: NMAC 20.2.50.122, Natural Gas-Driven Intermittent Pneumatic Controller Emission Factor* (7/28/2021) at p.1.

In addition, I believe that the cost to convert to instrument air or direct solar power is significantly underestimated by NMED Exhibit 95, *Pneumatics Reductions and Costs VOC 5-27-2021*. The estimates provided by Valor EPC as part of the testimony of Adam Meyer are much more realistic and representative of the total cost associated with converting to solar. NMED Exhibit 95, in the tab labeled Emissions and Costs, appears to assume that, for sites without electricity, the annual cost per site/device to convert to solar electric controller is \$855. See NMED Exhibit 95, *Emissions and Costs* Tab. This appears to be based on an estimate that the overall cost of the project is \$36,005 (\$24,003 for cost of controllers, valves, pumps; \$6,001 for cost of supporting equipment; \$6,001 for cost of installation). See NMED Exhibit 95, *Study Data* Tab. By contrast, Valor EPC estimates the cost of that same conversion to instrument air for sites without electricity to range from \$117,180 to \$138,118. See NMOGA NOI, Appendix A2, *Valor EPC Study: NMAC 20.2.50.122, Pneumatic Controllers* (7/28/2021) at p.3. The cost of conversion presented in the Valor EPC Study is well-supported and consistent with what I would expect, based on my experience in the field.

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Taking into account (A) the lower assumed emission rate for intermittent pneumatic controllers and (B) the greater cost associated with converting a site without grid electricity to solar power, the annualized cost per ton of VOC reduced changes by nearly an order of magnitude: while NMED based its proposal for pneumatic controllers on an annualized cost per ton of VOC reduced of \$2,745 per ton, the two changes cited in the Valor EPC study raise that cost per ton of VOC reduced to \$23,829 per ton for those sites that do not have access to the grid. *See* NMOGA NOI, Appendix A2, *Valor EPC Study: NMAC 20.2.50.122, Pneumatic Controllers (7/28/2021)* at p.3.

It is for that reason that the GCA believes that conversion to non-emitting controllers is only economically feasible at site that have access to commercial line electrical power. For that same reason, the NMED should embrace intermittent pneumatic controllers as part of the solution to reducing VOC emissions from pneumatic controllers.

V. Intermittent Pneumatic Controllers Should Be Part of the Solution

By design, intermittent pneumatic controllers are the lowest emitting gas-driven pneumatic devices available. The NMED and other interested parties have cited studies that show that a small percentage of observed controllers that malfunction account for the vast majority of emissions from the intermittent pneumatic controller category. *See, e.g.,* NMED Ex. 93, at p. 6; Clean Air Advocates Ex. 8, at p. 6 (Colorado Department of Public Health and Environment (CDPHE), *Pneumatic Controller Task Force Report to the Air Quality Control Commission* (June 1, 2020)). As noted in the CDPHE Task Force Report, the State of Colorado even instituted a “find and fix” program based on this fact in order to maximize the emissions-reduction benefits from this class of controller. No one has suggested that properly operating intermittent pneumatic controllers contribute significantly to emissions precursors to ozone, and cited studies measured intermittent

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pneumatic controllers to vent at rates as low as 0.1 scf/hr, with an average emission rate well below the EPA NSPS OOOOa level of 6 scf/hr. *See* NMED Ex. 93 at p. 19, Clean Air Advocates Ex. 8 at p. 19. NMED should allow and even encourage the use of intermittent pneumatic controllers in the oil and gas industry as it works to reduce ozone precursor emissions.

Moreover, the authors of the CDPHE Task Force Report themselves stated that the study's findings should be considered with care and not applied broadly. *See* NMED Ex. 93 at p. 20, Clean Air Advocates Ex. 8 at p. 20 ("Although the findings of this study are representative of the DJ Basin, they are not intended to be representative of PC operating characteristics at a national level and therefore should be used with caution at that scale.") According to their summary, the Task Force has conducted the largest inspection of pneumatic controllers, which was more than six times the sample size of the EPA study and showed half the percentage of intermittent pneumatic controllers were malfunctioned. *See* NMED Ex. 93 at p. 21; Clean Air Advocates Ex. 8 at p. 21. The more controllers included in the study, the fewer were found to be malfunctioning.

VI. Monitoring of Intermittent Pneumatic Controllers

Raymond Carr submitted direct technical testimony for GCA on July 28, 2021, relating to pneumatic controllers. *See* GCA Ex. 17. Mr. Carr has worked for FW Murphy, a primary supplier of intermittent pneumatic controllers for the gas compression industry, for over 30 years. *See* GCA Ex. 18. Mr. Carr testified that there is no need for routine monitoring activity for the FW Murphy SLS intermittent controllers due to their design. *See* GCA Ex. 17 at p. 5. As he explained, because the controller will only emit during the actuation cycle, routine monitoring will have nothing to inspect during periodic inspections. *Id.* It is J-W Power's experience that its intermittent pneumatic controllers can be maintained properly and minimize VOC emissions as-designed when operated and maintained according to our subject matter expert-designed operation and maintenance plans.

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201 However, we understand that the NMED may seek to require some form of ongoing monitoring
202 of intermittent pneumatic controllers as part of 20.2.50 NMAC to verify that the controller is
203 operating properly and only emits during the actuation cycle.

204 If the NMED establishes ongoing monitoring or leak detection requirements for
205 intermittent pneumatic controllers as part of the final rule, the GCA does not object to the
206 monitoring requirements proposed by NMOGA: monthly audio, visual, olfactory (AVO) or
207 optical gas imaging (OGI) inspection of natural gas-driven pneumatic controllers. *See* NMOGA
208 NOI, Appendix B, Redline of Proposed 20.2.50 NMAC, at p. 49. This would be a reasonable
209 schedule to ensure proper operation of those controllers, and that any malfunction would be
210 detected and repaired.

211 **VII. Expediting the Implementation Schedule for Pneumatic Controllers Would Be**
212 **Unreasonable**

213 Witnesses for the Environmental Defense Fund (EDF) have suggested that NMED expedite
214 the retrofit schedule for existing controllers in Proposed 20.2.50.122.B(3) Tables 1 & 2, NMAC.
215 EDF Ex. RR at p. 9 (Direct Testimony of David Lyon); EDF Ex. UU at p. 14 (Direct Testimony
216 of Thomas Alexander). NMED should not expedite the retrofit schedule established in the
217 Proposed Rule.

218 The costs of compliance with the controller retrofit requirements of Section 122 will be
219 significant. As stated above, the regulated community has concerns that NMED has
220 underestimated those costs in developing the Proposed Rule. The pneumatic controller
221 replacements or retrofits to be required by 20.2.50.122 NMAC will impose significant capital costs
222 on a yet-to-be recovered industry. It is also unknown at this time whether the significant supply
223 chain constraints that exist today due to the continued COVID outbreak will remain once the

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224 replacement deadlines approach. NMED should not make any changes that would expedite the
225 controller replacement schedules established in Proposed 20.2.50.122.B(3) Tables 1 & 2, NMAC.

226 **VIII. Conclusion**

227 NMED should encourage the use of intermittent pneumatic controllers in the oil and gas
228 industry as it works to reduce ozone precursor emissions. Properly maintained intermittent
229 controllers are low-emitting and provide a technically feasible and economically reasonable
230 solution to minimizing VOC emissions from controllers at remote sites without access to electrical
231 grid power. Given the actual costs of retrofit at sites off the grid, NMED should either (1) adjust
232 the pneumatic controller retrofit targets in Proposed 20.2.50.122.B(3) Tables 1 & 2 NMAC to treat
233 intermittent controllers like non-emitting controllers, or (2) follow Colorado's lead and exempt
234 from the replacement requirement sites that do not have access to electrical grid power. *See*
235 NMED Ex. 39, at p. 146 (Colorado Reg. 7, Part D, Section III.C.3.a(iii) (allowing the use of
236 natural-gas driven intermittent pneumatic controllers at sites where on-site electrical grid power is
237 not being used). The GCA does not oppose reasonable monitoring of intermittent pneumatic
238 controllers to confirm that they are operating as-designed to minimize VOC emissions.

239 This concludes my pre-filed rebuttal testimony in this matter.

Mark Davis

 mdavis@jwenergy.com

Summary

Mechanical Engineer with 17 years in the Natural Gas Compression industry at J-W Power Company. Have worked in engineering and operations roles with additional responsibilities for environmental compliance.

Experience

Technical Services Manager

J-W Power Company

Aug 2016 - Present (5 years 2 months +)

Manage engineering and field service group that provides technical support and training for J-W Power Company that packages, sells, and rents natural gas compressor packages. Ensure environmental compliance in field operations and package design.

Environmental Committee Chairperson

Gas Compressor Association

Oct 2014 - Oct 2020 (6 years 1 month)

Active in monitoring and engaging various rule making initiatives that directly affect the natural gas compression industry from a Federal and State level. Develop tools and summaries for industry to use for environmental compliance.

Technical Services Engineer

J-W Power Company

Aug 2005 - Aug 2016 (11 years 1 month)

Provide field technical support for J-W Power Company that packages, sells, and rents natural gas compressor packages.

Engineering Intern

J-W Power Company

May 2004 - Aug 2005 (1 year 4 months)

Support project managers at J-W Power Company who design natural gas compressor packages for rental fleet and sales applications. Includes the use of Solidworks, AutoCAD, and ERP system.

Education

LeTourneau University

Bachelor of Science - BS, Mechanical Engineering

2000 - 2005

Other

 **President** - CHURCH HILL WATER SUPPLY CORP - 150+ member system
Aug 2013

Proposed 20.2.50 NMAC: Oil and Gas Sector – Ozone Precursor Pollutants
GCA’s Suggested Changes to Rule Language

NOTE: Amended GCA Exhibit 3 supersedes and replaces GCA Exhibit 3 filed on July 28, 2021. Both Amended GCA Exhibit 3 and GCA Exhibit 3 present suggested changes to the Proposed Rule’s pneumatic controller requirements. The GCA is submitting the suggested changes in this Amended Exhibit 3 along with its rebuttal testimony on September 7, 2021. All of the paragraphs of Proposed 20.2.50.122 for which the GCA has updated its suggested changes are highlighted below in yellow: 20.2.50.122.C(1); 20.2.50.122.C(3); and 20.2.50.122.D(5).

Issue 3. Pneumatic controller emission standards and monitoring

Proposed 20.2.50.7 [new definition of “Intermittent Pneumatic Controller”]; 20.2.50.122.B(4), Proposed 20.2.50.122.B(3), Table 1 and Table 2, Proposed 20.2.50.122.C(1) & (4)

20.2.50.7 DEFINITIONS

“Intermittent pneumatic controller” means a pneumatic controller that is not designed to have a continuous bleed rate, but is designed to only release natural gas to the atmosphere as part of the actuation cycle.

20.2.50.122 PNEUMATIC CONTROLLERS AND PUMPS:

A. Applicability: Natural gas-driven pneumatic controllers and pumps located at wellhead sites, tank batteries, gathering and boosting sites, natural gas processing plants, and transmission compressor stations are subject to the requirements of 20.2.50.122 NMAC.

B. Emission standards:

(1) A new natural gas-driven pneumatic controller or pump shall comply with the requirements of 20.2.50.122 NMAC upon startup.

(2) An existing natural gas-driven pneumatic pump shall comply with the requirements of 20.2.50.122 NMAC within three years of the effective date of this Part.

(3) An existing natural gas-driven pneumatic controller shall comply with the requirements of 20.2.50.122 NMAC according to the following schedule:

Table 1 – WELLHEAD SITES, TANK BATTERIES, GATHERING AND BOOSTING FACILITIES

Total Historic Percentage of Non-Emitting Controllers <u>or Intermittent Pneumatic Controllers</u>	Total Required Percentage of Non-Emitting Controllers <u>or Intermittent Pneumatic Controllers</u> by January 1, 2024	Total Required Percentage of Non-Emitting Controllers <u>or Intermittent Pneumatic Controllers</u> by January 1, 2027	Total Required Percentage of Non-Emitting Controllers <u>or Intermittent Pneumatic Controllers</u> by January 1, 2030
> 75%	80%	85%	90%
> 60-75%	80%	85%	90%
>40-60%	65%	70%	80%
> 20-40%	45%	70%	80%
0-20%	25%	65%	80%

Table 2 – NATURAL GAS COMPRESSOR STATIONS AND GAS PROCESSING PLANTS

Total Historic Percentage of Non-Emitting Controllers <u>or Intermittent Pneumatic Controllers</u>	Total Required Percentage of Non-Emitting Controllers <u>or Intermittent Pneumatic Controllers</u> by January 1, 2024	Total Required Percentage of Non-Emitting Controllers <u>or Intermittent Pneumatic Controllers</u> by January 1, 2027	Total Required Percentage of Non-Emitting Controllers <u>or Intermittent Pneumatic Controllers</u> by January 1, 2030
> 75%	80%	95%	98%
> 60-75%	80%	95%	98%
>40-60%	65%	95%	98%
> 20-40%	50%	95%	98%
0-20%	35%	95%	98%

(4) Standards for natural gas-driven pneumatic controllers.

(a) new pneumatic controllers shall have an emission rate of zero where on-site electrical grid power is being used and use of a no-bleed pneumatic controller is technically and economically feasible. Where on-site electrical grid power is not being used or the use of a no-bleed pneumatic controller is not technically or economically feasible, new pneumatic controllers must be intermittent pneumatic controllers.

(b) existing pneumatic controllers ~~with access to commercial line electrical power where on-site electrical grid power is being used and use of a no-bleed pneumatic controller is technically and economically feasible~~ shall have an emission rate of zero.

(c) existing pneumatic controllers shall meet the required percentage of non-emitting controllers or intermittent pneumatic controllers within the deadlines in tables 1 and 2 of Paragraph (3) of Subsection B of 20.2.50.122 NMAC, and shall comply with the following:

(i) by January 1, 2023, the owner or operator shall determine the total controller count for all controllers at all of the owner or operator's affected facilities that commenced construction before the effective date of this Part. The total controller count must include all emitting pneumatic controllers, intermittent pneumatic controllers, and all non-emitting pneumatic controllers,

except that pneumatic controllers necessary for a safety or process purpose that cannot otherwise be met without emitting natural gas shall not be included in the total controller count.

(ii) determine which controllers in the total controller count are non-emitting controllers or intermittent pneumatic controllers and sum the total number of non-emitting or intermittent pneumatic controllers and designate those as total historic non-emitting or intermittent pneumatic controllers.

(iii) determine the total historic non-emitting and intermittent pneumatic controller percent of controllers by dividing the total historic non-emitting and intermittent pneumatic controller count by the total controller count and multiplying by 100.

(iv) based on the percent calculated in (iii) above, the owner or operator shall determine which provisions of tables 1 and 2 of Paragraph (3) of Subsection B of 20.2.50.122 NMAC apply and the replacement schedule the owner or operator must meet.

(v) if an owner or operator meets at least seventy-five percent total non-emitting or intermittent pneumatic controllers by January 1, 2025, the owner or operator has satisfied the requirements of tables 1 and 2 of Paragraph (3) of Subsection B of 20.2.50.122 NMAC.

* * *

C. Monitoring requirements:

(1) Pneumatic controllers or pumps with an emission rate of a natural gas bleed rate equal to zero are not subject to the monitoring requirements in Subsection C of 20.2.5.122 NMAC.

* * *

(3) The owner or operator of a natural gas-driven pneumatic controller with a bleed rate greater than zero shall, on a monthly basis, seal the controller and conduct an AVO or OGI inspection, and shall also inspect the pneumatic controller, perform necessary maintenance on (such as cleaning, tuning, and repairing a leaking gasket, tubing fitting and seal; tuning to operate over a broader range of proportional band; eliminating an unnecessary valve positioner), and maintain the pneumatic controller according to manufacturer specifications to ensure that the VOC emissions are minimized.

(4) ~~The EMT shall be linked to~~ The owner or operator of a pneumatic controller shall maintain a database that contains the following:

- (a) pneumatic controller identification number;
 - (b) type of controller (continuous or intermittent);
 - (c) if continuous, design continuous bleed rate in standard cubic feet per hour;
 - (d) if intermittent, bleed volume per intermittent bleed in standard cubic feet;
- and
- (e) if continuous, design annual bleed in standard cubic feet per year.

D. Recordkeeping requirements:

(5) The owner or operator shall maintain an electronic record for each natural gas-driven pneumatic controller with a natural gas bleed rate greater than zero. The record shall include the following:

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